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Editorial Notes

THIS is the holiday season, and many readers of *ANTIQUITY* will have gone sight-seeing or be taking part in excavations. Visits to ancient monuments prompt reflections on problems that confront their custodians and they are many and difficult. The remarks which follow are made with full knowledge of the fact that the conservators or custodians are doing their best, often with too small a staff and inadequate financial means. Such criticism as is implied is, therefore, not necessarily directed at those who are now responsible for the upkeep of the monuments.

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Since these notes are being written in Ireland at the end of a fortnight's field-work there, it would be awkward to maintain the usual convention, so I shall drop it and write in the first person. My visit was necessary because I needed photographs of some of the carvings on the stones of the famous burial-cairns of the Boyne culture—Lough Crew, Dowth, New Grange, and some others. Lough Crew is curiously named; there is no lake anywhere near, and the cairns are on a mountain-ridge high above the surrounding plain. There are three groups, one on each of the three summits of the ridge. Access is not easy; the middle hill can be reached by a lane and footpath on its south side, indicated by an official guide-post. The cairns are of different sizes and all seem to have approximately the same cruciform plan. There is a passage flanked by upright slabs—hence the term 'passage-grave'—leading to a corbelled chamber with (usually) a pair of side-chambers and another at the end. The whole was originally covered by a huge cairn of smaller stones, round whose base was a curb-wall of slabs.

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The carved designs are mostly on the inner face of the side-slabs and on some of those roofing the side-chambers. They consist of spirals, zigzag and wavy lines, concentric circles and arcs, triangles and rayed circles. These were all of some religious significance in connection with the cult of the dead; and the Abbé Breuil has convincingly explained some of them as derived ultimately from representations of the human face, particularly the eyes. The earlier stages of these designs are found in Iberia, where there can be no doubt at all that they represent faces; and I believe that the wavy lines originally represented side-tresses such as are found on figurines and pots in the East, whence the idea came. They may be interpreted as representing a deity.

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on the edge of the river, is another circular enclosure recently discovered and photographed from the air by Professor Ó Ríordáin. Between New Grange and Dowth, in the corner of a field, is a small and very perfect round cairn with the curb-wall well preserved and a wide berm five yards wide between it and the skirt of the cairn. It is therefore a sort of bell-barrow made of stone.



Clearly there is still much field-work to be done here. A survey of the existing remains, accompanied by a plan of them, photographs and descriptions, is the first thing needed. It should be done in the spring, when the vegetation is low and there are no clegs to bite the surveyor. It seems certain that excavation would reveal some more carvings, and it might also yield dateable remains. Priority, however, should be given to the duller but far more urgent task of conservation; it should be realized that the exposure of the carvings to the weather means that in a few years (archaeologically speaking) many of them will no longer be visible. The date of these cairns is still not certainly fixed; Dr Rafferty's discoveries at Lough Crew, of which so far only a preliminary account has been published, suggest that one of the cairns there (H) was constructed in the Iron Age. That is a disturbing thought; but it is very hard indeed to reconcile so late a date with the other evidence, all of which points to the Bronze Age.



New Grange is a show place, lit by electricity. Dowth is also a show-place, though it still has to be seen by the light of torches and candles. Knowth, excavated by Professor Macalister, cannot be seen at all and its great wealth of carvings is inaccessible. It is greatly to be desired that Knowth, like Lough Crew, should be put in order; for until then the study of megalithic art in Ireland is greatly impeded.



I cannot conclude these notes without referring to the most recently discovered of these cairns at Fourknocks, north of Dublin, near Balbriggan. Here is a small passage-grave that has been admirably excavated and put in order by the Ancient Monuments Branch. There are many carved stones, including one on which parallel rows of zigzags are as fresh as if they had been picked yesterday. I noticed one small but possibly important feature; one of the zigzags is unfinished, but the last leg has been scratched, not picked. It looks as if the procedure were to scratch the outline roughly at first and then go over it with a punch. That would, of course only be possible on slaty stone, but may it not explain the sequence of incised and picked lines already mentioned? A weak point, it seems to me, in the theory that the incised designs are 'far older' is that nowhere in this area have they been found dissociated from picked lines.

The Needfire Ritual

by THOMAS DAVIDSON

THE purpose of this paper is to give a brief survey of the Needfire ceremony and its variants as they occurred in various parts of Scotland. As the introductory example we take the case of a Morayshire farmer. 'In the year 1850 a murrain decimated the herd of a farmer in the parish of Dallas. He proceeded at once with all ceremony to kindle the *needfire*. Then digging a pit in the ground he sacrificed an ox' (1). This is fairly representative of the practice which was common all over Scotland. From time immemorial fires of different kinds have been kindled on certain days of the year. But besides these regularly recurring celebrations farmers resorted to fire rituals in seasons of distress above all when their cattle were attacked by epidemic disease, or, to ward off the devils of witchcraft. The general name by which they are known is *needfire*, Gaelic *teine-éiginn*, 'churned' or 'forced fire'. It was by needfire that fire was originally produced at all fire festivals. Of the primitive ways of kindling fire the commonest was by the friction of wood, and two methods of producing friction in this way was clearly distinguished, the fire-drill and stick and groove or fire-plough. In its simplest form the fire-drill consists of two sticks, one of which is pointed and held upright with its point pressing on the other, which was laid flat on the ground; the upright stick, or drill proper, is twirled rapidly between the palms of the hands till the point bores a hole in the other stick and the continued friction generates first heat and then fire which is nursed into a flame by dry leaves or other suitable tinder. In the fire-plough a pointed stick is rubbed vigorously along a groove or depression in a piece of wood laid flat on the ground.

Records about these rituals are abundant though not all speaking with one voice. The variants are due to local colouring and the tendency of those with imagination either to invent new ideas in an attempt to make certain of the desired effect, or to intensify that effect by varying the number of presumably active elements in the ritual. Usually however the differences are slight because the peasantry on the whole, were too conservative to adopt new ideas once the ritual had been sanctioned by tradition.

A glance at the records shows the widespread distribution of the ritual in both time and place. For example in 1810, David Gunn a crofter in Dunbeath, Caithness, while making a kailyard interfered with a 'fairy' broch. As a result fairy vengeance was poured out not only on him but on the whole community. This vengeance took the form of a plague which rapidly spread throughout the herds in the district and it was decided after much consultation that the only hope of salvation lay in the *teine-éiginn*. A branch was cut from a tree in a nearby wood, the bark was stripped off and it was carried to a small island in the Houstry Burn. Every fire in the district was quenched, and the community assembled on the island. Fire was produced in the following way. 'A slight depression was made in one piece of the branch, with the corner of an axe, then a small stick was placed upright in this depression and turned rapidly round as one would turn an auger in boring wood'. Every fire was believed to have been quenched, but at first there was difficulty in raising the flame. Search was made and it was found that a servant girl had left some live coals beneath the ashes. These were extinguished and the fire was kindled. From this sacred flame the fires of the houses were kindled and life was entered anew (2). Some years earlier in 1767 on the Island of Mull similar trouble was

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experienced in raising the ceremonial fire. Here, for several days in succession all efforts to kindle the flame failed. On investigation it was found that one householder had not allowed his fires to be put out for what he regarded as a wrong purpose. Eventually a servant was prevailed upon and next morning the hearth was cold and the flame successfully kindled. The cattle were driven through the embers three times in a certain order (3). What this order was, is unfortunately, not stated.

In the Western Isles eighty-one married men were considered to be the necessary number for carrying through the ceremony. They took two great planks of wood and nine of them were employed at a time to rub one of the planks against the other until the heat produced fire. From this forced fire each family was supplied with new fire which was no sooner kindled than a pot full of water was quickly set on it, and afterwards sprinkled upon the cattle that were suffering from the murrain. And this, 'they found successful by experience' (4). The mystic number of eighty-one also occurs in the last needfire ceremony carried out in North Uist in 1819. It was brought over from Sail, Dharaich, where it had been produced by the exertions of nine times nine first begotten sons (5).

About 1810 the fire was raised in the village of Balnaguard in Perthshire on the outbreak of a very infectious disease brought on by drought and called in Gaelic, *shag dubh*, the black haunch. The method adopted here was to extinguish all fires between the two nearest rivers and all the people within that boundary met in a convenient place where they erected a machine to raise the fire. A small stick supported by two perpendicular stakes with a cleft at the top was spun so that it rotated in a way similar to a grindstone. This was continued day and night until fire was forced from the two sticks. Every person performed a portion of this labour or at least touched the machine. Once the fire had been kindled, all the cattle within the defined boundary were driven over it (6).

Variants occur in Breadalbane where a fir or oak beam of a house was selected and a hole bored through it. A dry stick with a handle like that of an auger was inserted in the hole and turned rapidly and continuously (7). Until late in the 19th century, *teine-éiginn* holes were to be seen in the oak main couple of the Crannick old school-house which stood on Cragganester farm on the north side of Lochtay (8). The simplest method seems to be that used on the islands of Skye, Mull and Tiree. A well-seasoned plank of oak was procured and a hole drilled in the centre. A wimble of the same wood was inserted into the hole and so rotated. In some parts of the islands green wood was used, with an axle tree through it, and three times three persons, or three times nine were required for turning round by turns the wimble or axle tree (9). At little Lochbroom it was raised to ward off cattle malady called *An Tinneas Dubh*, the black sickness, by spinning 'an oaken auger in a holly beam' (10). In this particular case the site, Allt Eiginn, was chosen because it was out of sight of the sea. We find, however, in the same district that the fire was also raised by householders who dwelt within the two nearest running streams.

The following example from Morayshire shows clearly that the needfire offering was at times closely associated with purification. The new fire was forced with a 'muckle wheel' or by rubbing a piece of dry wood upon another. From the fire so produced juniper was burnt in the cattle stalls as it was believed the purifying action of the smoke would purge the disease, alternatively the juniper boiled in water was sprinkled over the cattle (11).

One of the conditions to be observed in the ceremony practised in Rannoch and the uplands of Lochaber bears a close similarity to the Druid custom in the Western Isles, of extinguishing all the fires in the parishes until the tithes were paid. In Rannoch it

was the custom for each family in the district to receive a brand from the fire to kindle the domestic hearth. But those in arrears of rent, had failed to pay their just debts, had been guilty of theft or meanness, or were known to have committed certain offences against good morals, were deprived of this privilege (12).

The practice of raising needfire was denounced by the Church on the grounds that it constituted an appeal in times of distress to some supernatural power other than God. Indeed the earliest proof of the existence of needfire in Scotland is furnished by the attempts made by the Christian Synods in the 17th century to put them down as pagan rites. In the parish of Grange, Banffshire, Robert Watson the minister regretted that 'in February 1644 there was Neid fyre raised for the curing of cattle' (13). The matter was referred to the Provincial Assembly. The same minister in March, 1649, again referred with regret to the raising of 'Neidfyre' within his parish (14). In the following May eight of his parishioners appeared before the Presbytery and confessed that they were present at the 'kindleris of neidfyre', but that they only carried out the instructions of the local 'wise man', James Duncan of Keith. The eight parishioners reported that five of their own elders were accessory to the fire raising. All were ordered to satisfy with three days repentance in sackcloth (15).

Some six months later the minister himself was implicated by John Gow who when apprehended asserted that he had consulted his minister about healing his goodis (cattle) by raising needfire, and requested his presence on the occasion. Watson the minister denied the latter, but agreed that resort to the cure by fire had been discussed (16).

Several offenders appeared before the Presbytery of Alford in 1668, for 'unwarrantly curing cattle by raising of Needfyr'; and in the same year the ministers of Towie and Strathdon were ordained to discharge their people from raising of needfire' (17). Other examples might be given, but we turn at once to another detail.

Special interest attaches to the account given in the Dallas ceremony because here sacrifice is specifically mentioned. Now sacrifice unlike the other elements of the ritual could not be ignored by the Church; it could not be dissociated from a recognition of the divine nature of the power in whose honour it took place. And it was because of this feature more than any other that the full might and authority of the Church was brought to bear in an effort to put it down as a sacrifice to the devil. For this reason it is not surprising that there should be now but few direct and evident survivals of sacrifice in farm and village customs. On the 20 January 1651, we find Turriff Presbytery censuring the Chamberlain of Fyvie and others for trying by means of charms and new fire to cure cattle of the quarter-ill and for burying 'ane ox quick which was a reall sacrifice to the dewill' (18). In the Breadalbane district when a cow showed signs of madness they tied the legs of the mad creature and threw her into a pit dug at the door of the fold. After covering the hole with earth a large fire was kindled upon it, and the rest of the cattle were driven out and forced to pass through the fire one by one (19). On 10 October 1658, Michael Kynoch was 'delat' before the Session of Urquhart for burying 'a young ox quick because his beasts were dying, this being judged as a sort of sacrifice to Satan' (20). Late in the 18th century, in Lanarkshire, the father of Sir James Simpson, the discoverer of chloroform, took part as a boy in burying a live cow as a sacrifice to the spirit of murrain (21).

To draw up a satisfactory classification of the conditions to be observed in carrying out the ceremony is difficult, as these show an almost infinite variation in detail. There are however several basic characteristics. With certain reservations families within a definite prescribed area, such as between two running streams, out of sight of the sea, on high ground to give good visibility, had to participate. Those families owing rent or

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tithe, or guilty of theft were excluded and denied the privilege of the kindling flame. All fires had to be extinguished. The number of presumably active operators or fire-raisers had to be some multiple of three—nine families, three times three men, eighty-one married men. The fire should be kindled on the farm or near the spot where the outbreak was discovered. The animals were driven 'sunways' round the fire in groups of three. Lighted brands from the fire were taken by each family to kindle the domestic hearth.

Such are the main points of elaboration on a once simple ceremony, and they show by their very complexities the tremendous importance and appeal of the ritual. Where such stringent conditions prevailed it is perhaps remarkable that so many held tenaciously to the ritual for so long—at least down to the early 19th century. After this date we find what may be described as degenerate needfire rituals in the sense that the ceremony has been stripped of all the ancient elaboration in the mode of raising the actual flame. For example, in 1850 disease broke out amongst the cattle on a small farm in the parish of Resolis, in the Black Isle. The farmer consulted a 'canny woman' in Banffshire about a suitable charm against the murrain. Acting on her instructions he burnt to death a pig and sprinkled the ashes over the byre and other farm buildings (22). A more terrible sacrifice was offered up in upper Banffshire. One of the diseased animals was rubbed over with tar, set on fire, driven forth, and allowed to run until it fell down and died (23). An Orkney farmer following the instructions of a wise woman from the Black Isle selected his best beast, and burnt it in a kiln with a roaring fire of peats. This was done with apparently beneficial results (24).

The explanation of the original needfire ritual is to be found in the notion of sympathetic magic in its most elementary forms; that of similarity immanent in imitation. Mimicry was a powerful agent, and a symbolic act was supposed to bring about, or cause to happen the event of which it was a symbol. Thus the kindling of the fire produced by imitation the beneficent influence of warmth and sunshine upon which depended the survival and, in cases of illness, the revival and rejuvenation of all living things. With the passage of time the ceremony became more sophisticated and eventually arrived at the animistic stage and the belief in the sympathetic principle of influence by direct contact. Thus it became necessary to drive the animals through the smoke and burning embers of the fire, or, we find the plainly equivalent practice of carrying lighted brands 'sunways' round the flocks and herds.

Although the needfire lost much of its meaning and ceremonious ritual after it became a penal offence, it was agricultural progress and reform that caused the ritual to fall into desuetude. The original needfire ceremony was an important communal affair. Up to a late period co-operative ploughing in open fields was the normal system tillage. Each farmer did not own his own plough and plough team; one had a plough while others had oxen which they contributed towards a common team; and the cattle of the community roamed unrestricted over unenclosed pastures. In times of distress, therefore, the preservation and survival of any one man's goods was the immediate concern of the whole community. As agriculture grew in importance new conditions were established, the most important being the series of Enclosure Acts which were passed between 1760 and 1844 whereby arable and pasture land was divided and enclosed. This re-arrangement of the land meant that for the first time farms became self-sufficing agricultural units; but it meant also that the awareness and importance of the needfire ritual became more and more localized, until eventually it ceased to have any significance, and the only traces now remaining are to be found in such rural merrymaking as Hallow-e'en bonfires and the 'Burning of the Crate' festivity in Ross and Cromarty.

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A. Carmichael, *Carmina Gadelica*, Edinburgh, 1900, Vol. 2, p. 239.
12. J. Macdonald, *Trans. Gaelic Society of Inverness*, Inverness, 1893-4, Vol. xix, p. 273. A similar custom is recorded for Buchan :—'if a man had not cleared with the Druids for his last year's dues he was neither to have a spark of the holy fire, nor were his friends permitted to let him take the benefit of theirs'. J. Pratt, Buchan, Aberdeen, 1858, p. 26.
13. S. Stuart, *Presbytery Book of Strathbogie*, Aberdeen, 1843, p. 51.
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15. *Ibid.*, p. 105.
16. *Ibid.*, pp. 117-18.
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18. J. M. McPherson, *op. cit.*, p. 32.
19. J. Ramsay, *op. cit.*, Vol. 2, p. 447.
20. W. Crammond, *The Church and Priory of Urquhart, Elgin*, 1899, p. 41.
21. E. B. Simpson, *Folk Lore in Lowland Scotland*, London, 1908, p. 27. The needfire with its associated sacrificial ritual was also considered a sovereign remedy against malignant diseases in human beings. A Highland example is the sacrifice of bulls at Loch Maree. Hector Mackenzie of Gairloch and others of his family were summoned before the Presbytery 'for sacrificing a bull in ane heathenish manner (i.e. with the fire ritual) in the iland of St. Ruffus . . . for the recovering of the health of Cirstane Mackenzie . . . who was formerlie sicke'.
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The Brå Cauldron and the Danish Early Iron Age*

by GLYN E. DANIEL

PROFESSOR CONRAD ENGELHARDT, who was himself responsible for the excavation of the four great finds of Thorsbjærg, Vimose, Nydam and Kragehul, gave us in his *Denmark in the Early Iron Age (illustrated by recent discoveries in the Peat Mosses of Slesvig)* our first comprehensive picture of Danish archaeology in the centuries immediately before and after the birth of Christ. His book was published in English in London in 1866 and the engravings of the Nydam boat and the Thorsbjærg woollen trousers have been commonplaces of archaeological teaching ever since. Engelhardt lived and worked in stirring times—his excavations at Nydam had to be discontinued 'when the two Allied German Powers, in the heart of the winter of 1864, assailed Denmark and conquered South Jutland'; and he was writing only thirty years from the time when C. J. Thomsen had formally proposed that the antiquities of the Danish prehistoric period should be divided into three distinct ages of Stone, Bronze and Iron. Engelhardt adopted Worsaae's classification of the Danish Iron Age into three periods, the Early Iron Age which he dated from 250 B.C. to A.D. 450, a transition period extending to the close of the 7th century, and the Late Iron Age terminating with the introduction of Christianity in the year 1000. He discussed whether the changes implicit in the Early Iron Age were the result of pacific intercourse or commercial relations with nations of higher civilization, rejects these, and says 'the higher state of civilization was the result of an invasion, for in no other way can the sudden appearance of damascened weapons, of materials hitherto unknown, of horses, arts and letters, be satisfactorily explained'.

This simple picture of the Danish Early Iron Age has changed enormously since Engelhardt's time, thanks to the work of Sophus Müller and many others; in 1940 in Volume III of his *Danmarks Oldtid* Professor Brøndsted gave us a contemporary account of our state of knowledge. The Danish Early Iron Age had begun much earlier and showed contacts not only with the higher civilizations in Engelhardt's sense of Rome, but of the Celts and their artist-craftsmen. Now, in these three publications, Dr Klindt-Jensen of the Danish National Museum, re-evaluates the Danish Early Iron Age, especially in its contacts with the outside worlds of Celts and Romans. He has been prompted to do so by the new vision we all have of La Tène art following the publication of Dr Jacobsthal's *Early Celtic Art* in 1942, and by his study of the Brå cauldron. And for the immediate comfort of English readers it should be said that the Brå cauldron publication is in English and Danish while the *Acta Archaeologica* publication (a large book which grew out of his doctoral thesis) is in English with a Danish summary.

* A review of three works by Dr Ole Klindt-Jensen of the National Museum of Denmark, Copenhagen, namely:—*Bronzekedelen fra Brå* (The Bronze Cauldron from Brå), Aarhus University Press, 1953, 30 kroner; *Foreign Influences in Denmark's Early Iron Age*, Munksgaard, Copenhagen, 1950; *Keltisk Tradition I Romersk Jernalder* (in *Aarbøger for Nordisk Oldkyndighed og Historie*, 1952, pp. 195-228).

The Brå cauldron was found in February 1952 in a pit; Brå is near to and south of Horsens in East Jutland. When found it was a heap of crumpled bronze sheeting with some well-preserved bronze animal figures and iron rings, together with a massive socketed iron axe. The cauldron had been broken into fragments before it had been buried: the pieces had been put in the pit in complete disorder. It was not a grave, and there were no human remains with it. The deposition of cauldron and axe was, it is thought 'doubtless . . . part of a religious ceremony, the form and motive of which we can only guess'. No objects of native origin were found with it; axe and cauldron are foreign. The cauldron itself, when complete, was very large; it had a diameter of 1.18 metres at its greatest width, 22 centimetres below the rim, was 70 centimetres in height and its capacity was estimated at 600 litres (roughly 28 gallons). It is obvious that a cauldron of this size with its heavy iron rim could not rest on the fragile bronze body; it was hung up by means of three ring handles. The original appearance of this hemispherical hanging cauldron was then an iron ring a metre in diameter with a collar of bronze sheeting, three ring handles, three bronze attachments, six (now only five) bronze bulls' heads and the large lower body of thin bronze sheeting. The three massive bronze attachments which held the ring handles were ornamented with birds' heads—heads of owls in stylized design in the round with sharply-cut domed eyes, stressed eyebrows of semi-circular shape and a hooked beak (PLATE II, A). The bulls' heads are splendidly done; one is reproduced here (PLATE II, B) and I certainly cannot do better than quote Klindt-Jensen's characteristically sympathetic and shrewd description of them. 'The modelling of the bulls' heads' he writes 'reveals an excellent understanding of the nature of the animal . . . It is not in the full meaning of the term a naturalistic reproduction, even though the head is life-like. The intention of the artist was rather to reveal the beast's nature by means of living and stylized forms. Attention is at once caught by the eyes, with their mild, astonished expression, the sensitive nostrils and the gracefully curved horns. Two 'cow-licks' lie smoothly curled over the forehead which is exceedingly lifelike with raised eyebrows and a prominent frontal bone. The bridge of the nose is schematic whereas the mouth again is naturalistic with a good-tempered grimace. It is a beautiful study in animal psychology, a unity in which details are nevertheless not lost sight of'.

One might add a beautiful and sensitive description of what I am almost prepared to agree with Klindt-Jensen to be 'the finest example known of Celtic plastic art'. In his analysis of the Brå ornament Klindt-Jensen uses Jacobsthal's division of Early Celtic Art into four phases; Early, Waldalgesheim, Plastic and the Hungarian-Sword-style, but he also adds a fifth, following these and preceding the political subordination of the Celts to the Romans and Germans, which he calls the Gundestrup Style after the most significant work of the period. The Brå cauldron itself he places in the Plastic Phase, although there is no exact parallel to it; and it is indeed to this style, when early Celtic art finally achieves complete independence and is personally shaping foreign motifs, that Brå belongs. He compares the Brå artistry with objects from the Malomeřice cemetery near Brno, and with the sculpture from the oppidum of Entremont near Aix-en-Provence, evacuated in the 2nd century B.C. and as there is no dating evidence in Denmark he uses this comparative evidence to date the Brå cauldron to about 275 B.C. (to Early La Tène 1 c). In Denmark itself Brå has to be compared with the decorated bronze cauldron from Rynkeby in Funen with its human face and ox-busts, and with the bronze objects from the Sophienborg bog in northern Zealand, and with the charming stylized fabulous animal from Tisso in Holbæk with its bovine forequarters and remarkable pointed curved tail.

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These decorated cauldrons as a whole must very properly be compared with Italian and Greek examples, but Klindt-Jensen takes the series further back to Asia Minor. He contrasts the art of the Danish Celtic cauldrons with the 'terror-inspiring Greek and Etruscan griffons and lions which raise their heads high above the rims of the cauldrons' and compares them more with the placid beasts on the Near Eastern cauldrons. He suggests that the inspiration ran to the Celtic world direct from Asia Minor, and regards Brå as probably made in Moravia, but certainly in Central Europe. Brå and Malomefice, he says 'originated within the same cultural area and in the same art school'. Whether or not we agree in detail with Klindt-Jensen's analysis and argument, we must be grateful to him for having given us such a clear and well illustrated account of the Brå find and for setting it in its context of European prehistory with exemplary learning and good sense.

But how did the Brå cauldron get to Denmark? Klindt-Jensen is tempted to fall back on Engelhardt's invasion and to connect its arrival in Denmark with the widespread migrations of the Celts; but eventually he decides against this view. Brå is an import, as are so many of the remarkable treasures of the Danish Early Iron Age. In his *Acta Archaeologica* book he is analyzing the precise nature of the foreign influences in the Danish Early Iron Age. He finds Denmark then no less susceptible to foreign influences than she is now. His general survey of the foreign objects (Roman, Celtic and continental German) shows how they were in the main goods which came to Denmark by peaceful exchange and this fits in well with the evidence of written sources. The distribution itself of foreign objects is along a number of natural thoroughfares, especially the obvious trading routes along the Elbe, Oder and Vistula. Klindt-Jensen sees the merchants travelling along these routes in boats and wheeled vehicles but more often with their merchandise on their own backs or on the backs of pack-horses, and he thinks that the actual trading was not confined to the occasional visits of merchants but that there were markets—the *commercias* of Pliny. What did Rome get out of this trade? presumably hides, cattle, slaves and amber. This part of his work owes much of course to Almgren and should be read in conjunction with the recent work of Eggert and the readable summary of the evidence of Roman contacts with Free Germany in Sir Mortimer Wheeler's *Rome beyond the Imperial frontiers* (1954).

The close of the Celtic Iron Age was a period full of wars and folk migrations, for example the great migrations of the Cimbri. Klindt-Jensen does not see these migrations and martial encounters as struggles for life but as also, in their way, methods in which different peoples and cultures were brought into contact. He notes in passing that even the taking of slaves and the subjection of tribes to conquerors did play an important part in culture contacts. Thus he answers the question Wheeler asks at the end of his summary of Free Germany and Rome: is the study of the imported objects 'merely the laborious collection of *disjecta*, of cultural accidents and curiosities out of context?' Wheeler thought not, and neither does Klindt-Jensen. He thinks we must infer that Celtic craftsmen, especially bronze founders, went to work for the expanding Germani (as perhaps, who knows, four or more centuries earlier Italian craftsmen had gone to work for the expanding Celts in eastern France) and he puts down to the Celts the elegant modelling of German jewellery and implements (particularly the drinking-horn terminals and the bronze strap-tags), the long two-edged cutting sword with blunt end, the broad iron shield-boss, the decorated lanceheads—even brooches and clothing.

The great fascination of these studies of Denmark in the Celtic and Roman Iron Age is that we do begin to apprehend the process of acculturation between barbarian and the civilized south, and so are beginning to apprehend the whole process of culture diffusion in prehistory. Klindt-Jensen argues that the carts and certain works of art found in

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Denmark are entirely alien to the Danish environment—they are special imports. It is true that the Dejbjerg cart and the Gundestrup cauldron stand out as unique expressions of the skill and aesthetic sense of Celtic craftsmen—and so does the Brå cauldron. We are given in the *Acta Archaeologia* work a most fresh analysis of the famous silver cauldron from Gundestrup, found in a small kettle-bog in Himmerland in 1891. Sophus Müller's basic publication in *Nordiske Fortidsminder* for 1892 had shown that at least three artists had worked on this cauldron to judge from the different renderings of eyes, hair, lips and animal skins. Yet all three artists shared the same artistic impulse and gave expression to the same style. Klindt-Jensen thinks it is only by chance that so far we have only one object like the Gundestrup cauldron with its nearest parallels in Denmark in the Rynkeby and Sophienborg cauldrons. He argues its Gaulish origin on the grounds of artistic motifs and on technical details such as the resin-filling of the back of the reliefs. He dates it to 100 B.C.—there is no trace of the *interpretatio Romana*—and he acclaims very rightly its great merit, that it represents for us the pre-Roman Gaulish religion.

Throughout these scholarly well written and excellently illustrated works Klindt-Jensen is referring to material from the contemporary contexts of southern France—from Entremont and Roquepertuse and elsewhere, and it is tantalizing that no comparable works exist covering the Early Iron Age in Mediterranean France. Jacobsthal and Benoît have made a start and it is good to know that others are working in this area where the broader aspects of Celto-Ligurian art will give us another fine example of acculturation between barbarism and civilization.

CORRIGENDA

In the last number (no. 114, June)

Page 92, line 30: *for* 'till 2500 B.C.' *read* 'after 2500 B.C.'

„ 93, „ 12: *for* 'two caves' *read* 'eleven caves'.

„ „ 42: *for* 'B.C.' *read* 'A.D.'

Persepolis: a review*

by M. E. L. MALLOWAN

THIS magnificent and monumental volume must be ranked amongst the trophies which Iran seems to engender for the bibliophile. That is chiefly due to the sumptuous and extensive architecture and sculpture to which justice can only be done by lavish illustration and panorama. Many of the half-tone plates are triumphs of photography which by skilful use of chiaroscuro bring into bold relief the mastery of the ancient stone-cutter over his material, his sense of space and proportion, his unending battle with the rock. Occasionally there is a photograph which has been better done in Arthur Upham Pope's *Survey of Persian Art*, notably for example the extraordinary quasi-Egyptian figure with the triple crown at Pasargadae, symbol perhaps of Cyrus's triumph over Syria; but *en masse* the views are glorious, be they reliefs, buildings or photographs taken from the air. It should be added that the anonymous architectural line drawings are also worthy of the book's distinguished format.

The text is a lengthy and for the most part lucid description of the monuments, an encyclopaedic catalogue of the buildings and their sculpture. Dr Erich Schmidt deserves high praise for an untiring industry which has increased the harvest, even if he has been content to forego the joy. The approach is strictly factual and one misses the speculative and historical outlook which was so stimulating in the strange and wayward genius of the late Professor Herzfeld, who began the work at the behest of Breasted in 1931 and laboured more or less continuously until 1934. One wonders what led to his resignation in that year; behind it no doubt lies another story not without its bitterness, which the annals of archaeology may one day unfold when the narrative has itself become history. It is to be hoped that he found solace in the generous prytaneum at Princeton where he produced his last work, two volumes on Zoroaster, an amazing compendium of recondite erudition in which flashes of brilliance intermittently illuminate a Stygian darkness, or lure us into pits from which we may emerge the better for the fall.

Perhaps one of the most attractive features of the text is the objective outlook, free from any personal bias about his predecessor's work. In the great clearance performed between the years 1934 and 1939 Schmidt was often able to solve problems which Herzfeld had been unable to probe; sometimes he could correct, sometimes confirm a theory. The evidence is carefully and conscientiously weighed, and the final chronological conclusions about the order in which the lay-out of Persepolis was extended and completed are logically argued on the best available evidence. Nevertheless the reader will not easily find his way through the labyrinthine text, indeed can hardly do so at all, unless he peruses concurrently the second chapter by Herzfeld in his celebrated book, *Iran in the Ancient East*. Two other books both published in 1954 will be no less useful as guides: H. Frankfort's *The Art and Architecture of the Ancient Orient*, and R. Ghirshman on *The*

* Erich F. Schmidt. *Persepolis I. Structures, Reliefs, Inscriptions*. The University of Chicago, Oriental Institute Publications, Vol. LXVIII. The University of Chicago Press, Chicago, Illinois. Price 65 dollars—£23. Our thanks are due to the University of Chicago Press for allowing us to reproduce here five copies of the beautiful photographs from this book.

Archaeology of Iran. But so rich has recent discovery been, that it will be many years before we may expect a standard work on Achaemenian architecture.

One criticism is therefore scarcely to be avoided, that little attempt has been made in this volume, with the exception of the chronological perspective, to see the wood for the trees. This is really reflected in the index where we search in vain for references to the discussion of problems, be it the dependence of Iranian architecture on foreign influences, the plastic treatment of sculpture, or the significance of Persepolitan carving in relation to Greek. It may be that an attempt will be made to remedy these defects in subsequent volumes. Where so much has been given it seems ungenerous to ask for more, but the massively detailed information has surely justified a more thorough analysis and a better synthesis. Moreover if historian and art critic have good grounds for these complaints, so has the archaeologist in the almost complete lack of stratigraphy. That was by no means as vital here as it might have been on other sites; the accomplishment of a stratigraphic record was no doubt impeded by previous plundering and absence of earlier digging records; but something could have been salvaged from the wreck between the years 1934-39, and may be even yet when the eagerly awaited account of the objects found in the ruins comes to be published. Fortunately however various groups of dated tablets have provided a better insight into the architectural sequence than many consecutive strata of undated debris, which could hardly have revealed so precise a story. Yet had the stratigraphic observations been recorded we should have been far less doubtful about the development of building and sculpture than we now are, and we might then have realized what was the difference between the work of Artaxerxes III, last of the active Achaemenian builders, and the energetic founders of Persepolis (PLATE III).

No one knows the reason for which Persepolis was founded, but its royal settlement represents the southern extension of Achaemenian power from Hamadan through Susa and Pasargadae, a safe terminal in s.w. Iran on an old trunk road to the south, and not too far from Bushire in the Persian Gulf, where a seaport must have existed from the earliest times. Water was obtainable from the Mountain of Mercy, and stored in a great cistern within; paved roads were cut through hill and dale and Darius I with the fearless arrogance of the oriental despot gave orders for the preparation of a gigantic plateau on which the new royal city was to be founded. This involved the cutting and levelling of about thirty-one acres of rock which then had to be walled, reveted and buttressed in preparation for the succession of buildings which it was designed to carry. The initial phase of the work lasted about ten years from 520-511 B.C., more than double the time which an Assyrian monarch had taken to erect a far bigger capital, Calah, in mud-brick: a remarkable demonstration of the advantage of that building material over stone, if speed was an important factor.

There was only one entrance to Persepolis, up what Herzfeld has described as the most perfect flight of stairs ever built. It was a beautifully proportioned gradient, executed without thought of economy, with the treads so spaced that you hardly realized it was a climb—just what stairs ought to be—an easy unjerked ride. Then came audience halls, monumental gateways, treasuries, and vast chambers, sometimes with more than a hundred columns, some of them towering, draughty, ill lit, pretentious; others on the contrary harmoniously planned units of construction, symmetrically balanced and spacious: they varied in merit.

The principal places of ornament were the façades of the rock-cut terraces on which the buildings stood at various levels, and the sides of the staircases which led up to the different palaces or halls. Here was represented an army of men, the nobles, Medes and Persians in tactful alternation, soldiers, bodyguards, tributaries from every part of the

realm, Cilicia or the Punjab, Scythians with pointed hats, Ethiopians leading in the unfamiliar giraffe, Bactrians with a disgruntled camel. The rather squat inelegant forms of the Persians, still endemic to the country, were shrouded under a garment, the candys, with its stacked folds, superficially Greek in appearance yet not necessarily Greek in origin. The sculpture, so individually fascinating, is in the mass often of a deadly monotony ; endless files of men, images of those destined to die at Marathon or Salamis.

It was Xerxes who was able to complete the greater part of his father's work, and to him must be attributed most of the buildings on the eastern side of the akropolis. He considerably modified and extended the great columned building known as the Treasury, and many a graceful towering shaft must be attributed to him. We see him majestic, impersonal, on the door-jambs of his halls, under the aegis of the winged Ahuramazda. Here, carved on the grey stone, are all the signs and portents of an overweening power.

How interesting it is that in the classic drama of the Greeks we can see these monarchs and their followers as they appeared in those critical hours when the fates of east and west were nicely balanced in the scales before and after those epic battles on land and sea which were to shape our destinies. In a play, 'The Persians', which is a feast of poetry, the tragedian Aeschylus describes the scene when Xerxes is returning home to Susa, having lost the flower of the Persian host at sea, 480-479 B.C. Part of the fascination of that moving play is the sympathy which the Greek can feel for his defeated enemy, and if there were no other reason, and one or the other had to fall, we should have opted for the royal host from Persepolis and Susa, those dread armies now for ever imprisoned in the stone. One touch in the same play is also poignant. We hear the lament of the old Persian queen, Atossa, as she awaits her son's inglorious return. And with all the grief for a fallen empire, what touches her most nearly is the thought of her son's disgraceful attire, the terrible state of his clothes. I like to think that this passage in the play is not merely a formal expression of horror at polluted garments, but really a memory of what Aeschylus's own mother said to him when he returned victorious from the field at Marathon in 490 B.C.¹

The oriental documents found at Persepolis, supplemented by those from Susa and the foundation tablets from Ecbatana are no less enlightening. From the famous account of the building of Darius's palace at Susa, we learn that skilled craftsmen as well as materials were imported from as far afield as Ionia in the west, and from Sogdiana and Gandara in the east. Large numbers of texts written in Elamite, from the treasury at Persepolis, reveal a similar cosmopolitan activity and illustrate a vital stage in the history of economics. From the time of Darius the documents begin to attest a gradual transition from the traditional payment in kind to a new method of disbursement which involved part payment in goods, wine, oil, cereals, meat², wool, cattle, and part in cash, that is silver, and eventually payment in money alone. The invention of coinage was as revolutionary and as practical as the more ancient invention of the alphabet, and it seems difficult to avoid the conclusion that what accelerated the process must have been a new sense of international parity which prompted rulers to induce the finest artisans irrespective of their country of origin to offer their services not merely as prisoners or slaves, but as free men. Such artisans, Greeks, Egyptians, or Syrians, were thus enabled to find

¹ *Persae*, 845-851.

² But it is disappointing to read in a footnote on p. 169 that Professor Cameron feels obliged to abandon his interpretation of one of the Elamite texts which had formerly led him to suspect the presence of a haoma priest at Persepolis. The text refers to the payment of a sheep to some individual, for services rendered.

their day to day subsistence in goods, and at the same time to accumulate savings in portable cash, which they could transfer to their homeland when they wished to do so. The system, as Professor Cameron has pointed out, must have led to the development of private banking on a wide scale³. Indeed most archaeologists who have worked in the Near East have probably at one time or another had to act as bankers for imported craftsmen, and it is not difficult for them to visualize how easily the practice could develop. I remember many years ago acting as banker for a skilled Turkish pot-mender who had come for employment on the Khabur and retained only the fraction of his wages required for his daily needs. After the dig was over I had to chase him over half of Syria and the Lebanon in order to pay the money back.

Thus there is a special fascination in contemplating the royal palaces at Persepolis because we can visualize so much of the human activity and organization which led to their creation. Most of the work is due to two bursts of activity in the reigns of Darius and his son; what was added later was comparatively trivial. None the less in the course of about fifty years additions and modifications by no means inconsiderable occurred, and a glance at the ground plan instantly reveals the fact that more than one architect must have had a hand in the work. It seems to me however that the box-like buildings supported by many rows of columns offered one considerable advantage when changes were contemplated. There is little difficulty in turning the main axis of a hypostyle hall through ninety degrees: the task needs little more than the closing of an old and the opening of a new door. This phenomenon seems to be illustrated in the considerable alterations which Xerxes made to the plan of his father's treasury.

There is so close a similarity between one hypostyled hall and another that a description of one of them may suffice in this brief review of the Persepolitan architecture. The palace of Darius was first partially cleared by Flandin and Coste in 1841; relatively compact, symmetrically planned, it is architecturally one of the most satisfactory buildings on the site; not too large (it measures none the less approximately forty by thirty metres), it served as a model for the more pretentious later buildings which succeeded it. 'The essential features of the plan of Darius' palace, namely a central hypostyle hall with adjacent suites of smaller rooms and a columned portico flanked by guard rooms—were repeated, though modified in the later residential buildings of Persepolis'. Schmidt has drawn attention to the resemblance between this and the contemporary temple built by Darius at Hibis, in the Libyan oasis of Kharga. The introduction at this period of the fluted cavetto cornice is perhaps the strongest proof of a direct influence exercised by Egyptian architectural ornament. No doubt the builders of Persepolis were well aware of the hypostyle halls so much favoured in Egypt, and the fashion may have encouraged them to stress that form in Iran: but the style itself had probably long been known within the country and still persists in the porticoed houses of Kurdistan and the wooded slopes of the Elburz, wherever the trunks of the tall poplar are available for column shafts. At Persepolis itself it is generally believed that some parts of the columns, particularly the capitals, were sometimes made of wood. In the Palace of Darius itself no stone shafts or capitals were found at all, and (225) 'it is plausible to assume that they were made of wood rather than of stone, but our observations in the Palace of Xerxes teach caution': indeed it is possible that the missing shafts have to be accounted for by intensive pilfering of stone in subsequent periods (241).

A most interesting feature of this and the other residences at Persepolis is the use of windows, which consisted of simply constructed stone frames, which the author

³ See George G. Cameron, 'The Persepolis Treasury Tablets', *O.I.P.*, LXV, pp. 1-14.

suggests 'were once provided with shutters, made presumably of wood'. This new system of fenestration was not the least remarkable of the innovations introduced by the Achaemenian architects, who it is true must also have relied on the time honoured system of clerestory lighting through raised roofs. But in these well constructed window frames we may again legitimately suspect an influence from contemporary Egypt. It is remarkable that we have to go back nearly a millennium to the Hittite buildings of Boghaz Koi to find the system extensively used.

It is noticeable that in the palace mud-brick was also employed side by side with the stone, but earlier diggers appear to have cut away all traces of it; indeed in most Achaemenian buildings, however magnificent, the use of some mud-brick units was inevitable.

We have already seen that the sculptors of Persepolis condemned to decorate long surfaces of stone with monotonous lines of men in procession had been confronted with a task which presented a difficult problem for any sensitive artist. It is appropriate that the carvings on the stairs of the founder of Persepolis seem to reflect a greater awareness of that problem than at any other place on the site. This we may observe well depicted on the façade of the western flight of the southern stairway where the long line of alternating Medes and Persians is seen striding vigorously upstairs, each man with one foot forward on the next tread of the stairs; the offerings which they carry varied and well balanced; the little stags beautifully delineated: the treatment is thus far more effective than the monotonous files of standing figures on the eastern front of the Apadana, and we may suspect that Darius chose the best artist of the day to execute the job. The splendid figure of a lion savagely attacking the hindquarters of a bull, well adapted to the pedimented front of the stairs, reveals the Achaemenian stone-cutter at his best (PLATE IV, B). When he had to compose a brutish collocation of animals fantastically poised he had a matchless feeling for the building up of tense and vital masses. His was essentially a decorative art, closely allied to that of the metallurgist, with a feeling for effective detail and torsion. His stylization of plants, the segmented stem cupped with palmette, the use of rosette borders to frame his designs, reflect the art of the jewelsmith and give a light expensive touch without ever overloading the ornament (PLATE IV, A). The man-headed, bull-eared sphinx on the façade of the southern stairway of the Palace of Darius with the upturned Achaemenian wings in contrast to the downturned wings of Assyrian monsters, a splendidly decorative subject, underneath the winged figure of Ahuramazda (Plate 127 of the published volume) illustrates the effectiveness of Achaemenian sculpture at its best.

In spite of inevitable monotony and repetition there is thus more to admire than condemn in the execution of Persepolitan reliefs. It seems invidious to single out objects for admiration, but I would call attention to PLATE V (incidentally a magnificent photograph) which illustrates the Ahuramazda symbol on the north jamb of the eastern doorway of the main hall. Here the relief brilliantly expresses in the winged figure the Iranian concept of Majesty, and below it a beautifully executed tasselled canopy surmounted by a delicately engraved file of lions approaching the winged disc is a translation into stone of the Persian carpet. Thus in Achaemenian art we find yet another influence—textiles, and it is quite clear from the carvings that in the 5th century B.C. the industry was then as flourishing as it has ever been. To see Achaemenian detail at its best one need only examine PLATE VI where we have a beautifully illustrated close-up of the sword of the king's weapon-bearer, decorated with ibex, winged monsters, floral and other devices. This must reflect a marvel of the smith's art; it is carried by a Mede and was no doubt made by Median smiths whose workmanship has recently been so brilliantly revealed in the discoveries at Ziwiye.

These comparisons inevitably lead to the question as to the origin and derivation of Achaemenian art, a subject which has already been extensively treated by Herzfeld and others. Assyria provides one obvious and ready answer, but it is a superficial answer at best. None the less it is beyond dispute that the reliefs which depict a hero killing the monster, on the door-jamb of the main hall in Xerxes' Palace ultimately derive from Mesopotamian art and would hardly have appeared at Persepolis had not Sennacherib and other monarchs preserved the tradition in Assyrian. The Achaemenian sculptors however rendered the subject in their own inimitable manner and were far from being slavish borrowers. Indeed Herzfeld rightly remarked that there was a greater affinity with Assyrian sculpture of the 9th century (Assur-nasir-pal) than with that of the 7th (Assurbani-pal). That observation no doubt was one of the reasons which led him to insist on a line of descent both chronological and topographical: Hatti-Urartu (Armenia)—Media—Persia. Some of the tradition which culminated in Achaemenian art must indeed have been transmitted along that way; but there are still two weak links in the chain—Ecbatana (Hamadan) and Pasargadae. So long as the former site remains covered by the modern town of Hamadan we are unlikely to discover how much the Achaemenians owed to Medean art and architecture. Similarly we need to know much more about Pasargadae, the home of Cyrus, to judge the extent to which the achievements of Darius and Xerxes had been foreshadowed by their great predecessor. In spite of all these possible sources of inspiration however, it seems most likely that Achaemenian art and architecture arose as suddenly as the royal line itself. Persepolitan hypostyled halls and Persepolitan sculpture were as artificial as the Old Persian cuneiform script and disappeared as rapidly before the onslaught of Hellenism. Herzfeld assessed the matter correctly when he reckoned that this was 'not a young art with the genius of a long and great future, but an old art, the very last phase of the Ancient East, with no future'⁴. I think we may go a step further and suggest that Achaemenian art had no real roots in the past: it was a highly artificial growth bred under cosmopolitan influences which included Egypt and a large part of Western Asia. The growth had been forced and the Greeks had a name for the pride which preceded the fall: *hubris*.

⁴ Herzfeld, loc. cit., 247.

Language as a Means to an End

by CYRUS H. GORDON

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TO investigate any topic properly, we should exploit all the evidence bearing upon it. The study, therefore, of any period of antiquity documented both by artifacts and texts, requires the synthesis of archaeology and philology. He who would control any period of history, must master its written as well as its archaeological sources.

The growth of knowledge, and the development of new techniques, evoke more and more specialization. This has happened particularly in the study of man as a result of the masses of data that keep pouring in, during an age of discovery through exploration and excavation.

The study of language has been affected by current trends, and the new approaches to language have made some valuable contributions. The most important product of linguistic science remains the concept of phonetic law developed in the 19th century. More than any other factor, phonetic law has provided the surest control we have over linguistics, philology and, often enough, over history itself. Phonetic law provides criteria for determining which combinations are possible and which are not. Many a false hypothesis can be kept from distorting history, through the application of phonetic law.

But the very importance of phonetics has its dangers. It easily degenerates into a mechanical discipline. While, at its best, phonetics is fostered by men of wide and deep linguistic knowledge, it often attracts technicians without such knowledge. Then it becomes a mechanical trade; though this is not to deny that even at a mechanistic level, practical results of a useful nature may emerge. Phonemicists, for example, are cooperating with engineers to develop better acoustic principles and devices. Such cooperation is a boon for mechanical progress but it adds nothing to the study of man. Moreover, economic factors tend to siphon off linguistic efforts from scholarship into engineering. I should like to see enough linguists in scholarship and enough in engineering, with the two camps kept separate so as to serve their respective missions best.

Another basic contribution of linguistic science is the clear differentiation between script and speech. The old confusion between letters and sounds, or between visual symbols and spoken words, has been replaced with a realistic distinction. Speech is primary; writing is secondary. But this fundamental truth can be abused. In their zeal to do justice to speech, some schools of modern linguistics are turning out linguists with no training in texts. This may be satisfactory for recording and analyzing the languages of illiterate speech groups, but not for studying languages with long literary traditions, well-known histories and previous grammatical analysis. Not so long ago, a study of the Turkish language was published by avant-gardist linguists who were either innocent of, or else cleverly concealed, any previous acquaintance with Turkish. The idea behind such a study is that since traditional language description is faulty, we must disregard everything that has been done and start afresh, armed solely with the technique of some school of thought, and without prior knowledge of the language or what has been

written about it. The technicians' source of material is the speech of a native informant. The value in this approach is that it helps us take each language on its own terms instead of our forcing it into conventional, Latin-like categories. Yet we may question the premise that 'it pays to be ignorant'. For instance, the Arabic loanwords in the Turkish informant's utterances diverge structurally from the normal Turkish vocabulary. Since those loans are well known Arabic words, why not say so? Instead the modern linguists preferred to lump them together as unclassifiable. *Cui bono?*

The new emphasis on speech to the exclusion of texts, is for obvious reasons of greater service to the cultural anthropologist than to the student of antiquity. It remains a fact that the story of mankind leans heavily on written records spanning, more or less, the last five thousand years. Whereas our recordings of the spoken word are limited to the brief period of men still alive.

Men who concern themselves with the written records of antiquity are usually not part of those circles known as 'linguistic'. This is unfortunate for all concerned, including the linguists themselves. All knowledge profits from being placed in depth. The structuralist who records the speech of an exotic tribesman is scarcely able to evaluate his material in time, since he knows nothing of the earlier stage whence that speech evolved. How much better off is the Romance linguist who can trace his modern dialectal data to Latin! And how much richer will any linguist be if he profits from the story of Egyptian with its four thousand years of recorded development from the Pyramid texts down through Coptic!

All points of view may have something in their favour and something distinctive to contribute. To the student of antiquity, however, language is a means to the understanding of man's past. To use language as a means does not signify that the user should be, or is, an amateur in the science of language. To the contrary, he should be a master of all the criteria—of the ins-and-outs of the scripts as well as of the languages against a background of sound linguistic principles and techniques—that define the meaning of the text. Every jot and tittle; every phoneme; every morpheme; every taxeme; every idiom—all these and more must be controlled by the historian who builds up factual history, or who evaluates the factual work of other historians. Furthermore, the scholar who would reconstruct history from the sources, must interpret his texts against the fullest possible sociological, psychological and historic background appropriate to the text in question. Language is always a function of specific human contexts. The documents in any language are the principal key to its context; and that context is the indispensable key to the meaning of the documents. The understanding of written record and human context thus go hand in hand; and each is aided by progress in the other.

Perhaps the reader will find the following concrete example more enlightening than further verbal exposition. In Ugaritic literature, there are references to *mr̥ḡtm ṯd* 'they who suck the breast'. The orthographic lack of vowels conceals from us whether *mr̥ḡtm* 'sucklings' is to be read as plural (*marāḡḡitūm-*) or dual (*marāḡḡitām-*). The linguistic facts of the pronunciation and morphology cannot be established from the text without collateral information. In this case, the literal meaning must be determined before the linguistic analysis can be made. Fortunately, an archaeological discovery solves the meaning. Cf. F. A. Schaeffer has found at Ugarit a royal bedstead with carved ivory panels, one of which (*Illustrated London News*, 27 March 1954, p. 489, fig. 6), and PLATE VII here shows two royal sucklings at the breasts of a goddess. Accordingly, the artistic representation and the textual references illuminate each other and mutually provide the starting point for understanding the concept of divine kingship at Ugarit. There is a

wealth of data on divine kingship in the ancient Near East, from Egypt to Mesopotamia. Isaiah 60 : 16 alludes to it in the expression to suck 'the breast of kings'. Homeric *diotrefês* (a frequent epithet of kings) thus should no longer be rendered 'Zeus-fed'; it is applied to kings who have qualified for their position through the fiction of having sucked the breasts of a goddess.

Our approach has settled a linguistic problem : the duality of *mrġtm*. But since we are considering language as a means to an end, we do not stop here. The dual *mrġtm* points clearly to the concept of double kingship at Ugarit ; cf. that institution at Sparta. The detailed implications of dual *mrġtm* lie beyond the scope of this essay.

Without control of texts and artifacts, history degenerates into unfounded schematizations. Without history, texts and artifacts lose their significance. The interplay among text, artifact and human story, imparts a fuller meaning to all three.

Correspondence

SIR,

The reflections which follow your interesting Note in the June 1955 number of *ANTIQUITY* provoke this protest from one whose profession it has been to make 'useless devices'.

The military engineer was taught to believe that the ideal fortification was one that was never attacked. There was for example the classic instance of the Lines of Torres Vedras which saved Wellington's army ; and, paradoxical though it may seem, the Maginot Line is another.

You are claiming that a fortification is equally useless whether too strong to be taken or too weak to be held. But, surely, if Iron Age A camps were never attacked, they served the purpose for which they were built ; and, if Maiden Castle fell, it was only because no place is impregnable.

Yours faithfully,

R. H. CUNNINGTON (Lt.-Col. Late R.E.)

The Ancestors of Jonathan Oldbuck*

by STUART PIGGOTT

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'SIR WALTER SCOTT', Andrew Lang once remarked, 'entered literature through the ruined gateway of archaeology'. The influence of Scott's poetry, and of the Waverley Novels, upon the growing antiquarian and romantic taste of the early 19th century is a commonplace which needs no enlargement here, but it should have a particular interest to us as Fellows of a Society founded for the study of Scottish antiquities when young Walter was nine years old, and to which he was elected in 1796. That one of his novels should be called *The Antiquary* is no mere chance, and in Jonathan Oldbuck of Monkbarrow, who plays the title-rôle, Scott produced a character whom he acknowledged as in part a humorous caricature of himself. As a crumbling pilaster, or mouldering gargoyle, of Lang's ruined gateway, I should like tonight to direct your attention to *The Antiquary's*, and *The Shirra's*, archaeological ancestors: what was the climate of antiquarian thought in which Scott had been brought up and how is it reflected in his work? I do not promise anything new in this brief enquiry, but there are points of interest which may not have been brought together before.

It is, I think, now generally recognized that, great though Scott's contribution to the romantic and antiquarian movements in art and literature was, it was less an innovation than a brilliantly successful popularization of ideas and moods of thought that had been current for some time. Romantic and antiquarian: the two are inseparable in Scott, and remained so well into the later 19th century, but when we look further back we find the partnership not always so firmly established. In fact I hope to show that in Scott's antiquarian background there were two main tendencies of thought, of which one was more susceptible than the other to romantic heightening. One of the spells cast by the Wizard of the North was the closer fusion of romance and antiquarianism into a single emotional experience, at first individual and personal to himself but quickly transmitted by his writing to an ever-widening circle of excited and delighted readers.

Of these two attitudes of mind to the past, the first was shared by Scotland with English antiquarians, had been current since the middle of the 17th century and was flourishing at least to the middle of the 18th. This we may call the classical tradition, in which the remains of the Romans in Britain were seen as the last tangible links with the civilized world before the severance brought about by the Gothic Middle Ages; with it too was involved the objective scientific study of natural and artificial phenomena which one associates particularly with the founding of the Royal Society. The second mode of thought, originating by the middle and flourishing in the second half of the 18th century, seems distinctively Scottish in origin, having its genesis in the philosophical speculations on the origins and development of man, language and society associated with what have been called the Scottish Primitivists, and involving in its speculations the question of the antiquity of vernacular epic poetry. To these one must add of course the less precisely defined but nevertheless powerful interest in monumental field antiquities, were they

* A lecture to the Society of Antiquaries of Scotland, 10th January, 1955.

THE ANCESTORS OF JONATHAN OLDBUCK

megaliths or castles or monastic ruins, developing in England in partial response to the improvement of roads under the Turnpike Acts and in Scotland with the new impetus given to travel after the '45 by political settlement and Wade's road system, and all stimulated by that nascent Romanticism that Scott was to foster and encourage.

Before examining these trends of thought, let us look at The Antiquary himself for a moment. Scott claimed to have incorporated in Jonathan Oldbuck's quirks and eccentricities certain characteristics of George Constable of Wallace-Craigie, John Ramsay of Ochtertyre and of Sir John Clerk of Penicuik. The last-named, as we shall see, has indeed the best claim of any save Scott himself as a partial prototype, and the best-known incident in the novel, the scene at the alleged Praetorium of the Kaim of Kinprunes, was based almost verbatim on an irreverent family legend of Baron Clerk retailed to Scott by his grandson, John Clerk of Eldin. But Sir Walter enjoyed seeing himself as The Antiquary, and to the unfinished catalogue of the Abbotsford Museum gave the characteristic title of *Reliquiae Trotcosianae, or the Gabions of the late Jonathan Oldbuck Esq.*

We may now turn to discuss in more detail those two main antiquarian tendencies I have mentioned. The 17th century tradition of classing antiquarian researches with those of the natural sciences is best represented in Scotland by Sir Robert Sibbald (1641-1722) whose university education began in Edinburgh and continued in France, and who was primarily a physician interested in zoology and botany. But by 1706 he had turned his attention to Roman and prehistoric antiquities in Scotland, and to historical and topographical surveys such as that of Fife. We owe him a debt of gratitude for his remarkably adequate illustrated account, published in 1710, of an important hoard of Late Bronze Age objects from that county now, with one probable exception, wholly vanished. Sibbald, with his interests in archaeology mainly directed to Roman antiquities, may stand appropriately at the head of the classical tradition in Scottish antiquarianism.

But the most significant and endearing personality among the early 18th century antiquaries in Scotland is Sir John Clerk of Penicuik, Baron of the Exchequer. With the Baron, we enter immediately into the central antiquarian circle of the day, that of Roger and Samuel Gale, William Stukeley, Ralph Thoresby and the rest. Sir John, born in 1676, started his education at Glasgow University and continued it in what he found a more congenial atmosphere in the University of Leyden, where he studied jurisprudence and attended lectures on classical antiquities by Voorbrock and Gronovius, took drawing lessons, became a competent musician and formed a friendship with Boerhaave, the distinguished physician. Sir John indeed seems to have introduced him to porridge: perhaps tactfully he described it as *nutrimentum divinum*. From Holland in 1697 he set out on a tour to Italy: in Rome, he says, 'my two great diversions were Musick and Antiquities', and he looked back on his visit there with pleasure for the rest of his life. He practised as an advocate, took a considerable part in the negotiation of the Act of Union of 1707, and was appointed a Baron of the Exchequer in the following year. From the 1720's onwards his classical tastes were developing in two directions—an interest in the Roman antiquities of North Britain, and the practical application of his archaeological learning by designing buildings in what was in Scotland still an unfamiliar and somewhat daring mode, the classical styles which one associates with Palladio and his followers. These two activities must be seen as two parts of a whole, as closely linked as the writing of the Waverley Novels was to the building of Abbotsford.

Sir John's researches in Romano-British archaeology are best reflected in a folio published in 1726 and which in the opening pages of *The Antiquary* we find Mr Oldbuck

bearing home in triumph on the Queensferry coach. The *Itinerarium Septentrionale* was not in fact written by Sir John, but largely resulted from his patronage of its author, Alexander Gordon—'Singing Sandy'—who ended up as secretary to the Governor of South Carolina. Gordon refers enthusiastically to his patron as 'a Treasure of Learning and Good Taste' and some of the field-work for the book was done by the two of them together, notably on a tour to Hadrian's Wall in 1724. The title of the work must almost certainly echo the *Itinerarium Curiosum* of William Stukeley, published in 1725: Gordon and Stukeley were friends within the same learned circle as the Baron, all were Fellows of the Society of Antiquaries (Gordon succeeded Stukeley as Secretary in 1726), and of the Spalding Gentlemen's Society. But unfortunately not much can be said for Gordon as an archaeologist, and his plans are on the whole travesties of the original sites. As we shall see, by the end of the 18th century Roman Scotland was to be far better served.

Sir John Clerk's architectural interests deserve a moment's attention. In May 1723, he designed himself a house at Mavisbank 'under the correction of one Mr Adams, a skilful Architect', but refusing to add the additional storey suggested by the latter. The house has, as might be expected, a Palladian façade, with a pediment against an attic storey in the William Adam manner. Sir John's architectural tastes were developed by his friendship with Lord Burlington, and must surely also be represented in the house of Penicuik itself. Though this was designed and built by his son Sir James in 1763, it is as Palladian as Mavisbank of forty years before and presents a striking and archaic contrast to, for instance, Duddingston House, built in the same year by Sir William Chambers and representing the up-to-date classical taste of the time. One can only conclude that Sir James was acting in filial piety when he worked in an outmoded idiom dear to his father but long out of fashion. Perhaps he was unaware that taste had changed.¹

We see Sir John Clerk and Alexander Gordon then as the devoted students and exponents of the classical tradition, recognizing in the monuments of Roman Britain evidence that this remote Province had once been part of the civilized world of antiquity. There was indeed more to it than that; their classicism was militant. Sir John once took Sandy Gordon to task for accepting the speech of Galgacus as a genuine utterance of early Scottish nationalism instead of a well-worn literary artifice. In his view, he said, 'It is a reproach to a nation to have resisted the humanity which Rome laboured to introduce', and one of his favourite sayings was 'Goths will always have a Gothic taste'—including as Goths the whole of the Middle Ages and any of his contemporaries he did not consider men of culture. Sir John and Gordon were good Roman Knights, keen members of Stukeley's little society of Roman Studies, out (in Gordon's words) for the 'Extirpation of *Gothicism*, Ignorance and a bad Taste'.

Scott's friendship with the Clerk family had introduced him to their stories of the Baron's antiquarian activities, most notable of which was that which formed the prototype of Mr Oldbuck's disconcerting episode, at the Kaim of Kinprunes, where Edie Ochiltree's all too accurate memory of the recent building of the 'Praetorium' deflated his demonstration of what he was claiming as a newly discovered Roman fort. The Baron had, it was said in the family, suffered this antiquarian humiliation at Drumcrieff, where the builder of the 'Roman camp' appeared in person, proudly announcing

¹ For Sir John Clerk, see his *Memoirs* (ed. *Scottish History Soc.*, Vol. XIII (1892)); Piggott, *William Stukeley* (1950), *passim*; John Fleming, *Scottish Country Houses and Gardens* (1954), 13, 82, for his architectural interests though with some confusion as to the designing of Penicuik, the extant drawings for which are by Sir James Clerk. For Gordon *Proc. Soc. Ant. Scot.*, x (1872-4) 363.

he had made it 'wi' a flachter spade'. It is likely too that Scott read the autobiographical *Memoirs* of Sir John's life and times which remained in manuscript in the family until published in 1892; I have sometimes wondered whether Dr Heavysterne of the Low Countries was not one of Sir John's Dutch friends, perhaps the great Gronovius himself.

Sir John Clerk was the leading Scottish antiquary of that early 18th century group represented in England by Stukeley and his friends, and celebrated in 1726 by Allan Ramsay's *Scots Ode to the British Antiquarians*; the Baron published an essay on the Roman stylus in 1731 though his *Dissertatio de Monumentis Quibusdam Romanis* did not appear until 1750. By this time William Roy, born in the year of Ramsay's *Ode*, was beginning his famous surveys of Roman forts in Scotland, and with him one naturally remembers General Melville, a friend of the Clerk family, who indeed made a walking tour in 1754 with John Clerk of Eldin and his brother Matthew, along the Antonine Wall and into the Highlands, looking for Roman sites.

It was from this background then that Scott drew certain elements in Mr Oldbuck—his passionate interest in Roman castrametation, the ludicrous episode on the 'Praetorium', and his proud acquisition of Sandy Gordon's folio. I should like in parenthesis to suggest that the introduction of a Roman camp into a novel may have influenced a contemporary writer, Thomas Love Peacock. In his *Crotchet Castle*, published in 1831, an earthwork on the Berkshire Downs affords the Rev. Dr Folliott an opportunity, when timidly asked by a stranger whether it is not an 'old British camp', to thunder 'Roman, sir; Roman; undeniably Roman. The vallum is past controversy'. And it would be a brave man who contradicted Dr Folliott. Mr Chainmail too, in the same novel, has many features which recall Sir Walter, though his prototype is usually considered to be Sir Edward Strachey. Scott certainly appears in another Peacock novel as we shall see. But to return to Scott and *The Antiquary*. Whatever use he may have made of the Scottish tradition of Romano-British archaeology as it existed in the second half of the 18th century, Scott could not have found this field of study congenial to his own temperament. He was a poor classic anyway, and the romantic in him would hardly choose the Roman Occupation of Britain as a period of the past to be idealized. Rather, like Gordon, he would accept Galgacus' speech at its face value; the Baron would have shaken his head at this 'Gothic taste'.

It is not my purpose here to develop the well-worn theme of antiquarianism and the Romantic movement, which had already begun to join forces by the time Scott wrote his poems or started his collection of Border ballads. In Scotland the picaresque figure of that 'antiquarian Falstaff', Captain Grose, lumbers obesely across the scene; friend of Robert Burns—he is of course the 'chiel amang ye takin notes' for his *Antiquities of Scotland* published in 1789–91—he forms the northern counterpart to the romantic antiquarian journalism put out in England by Britton. All this is familiar enough, but there is another, peculiarly Scottish, development of thought about antiquity in the middle and latter 18th centuries which deserves attention.

Perhaps it can best be introduced by Peacock, that acute and witty observer of the foibles of his age, who in *Crotchet Castle* (already mentioned) has a splendid episode when at the end of a most convivial dinner, Mr McQuedy, the Modern Athenian, tries repeatedly to read the company a paper which opens 'In the infancy of society . . .' He was fortunately never allowed to get very much further, but Peacock's joke at the expense of the Edinburgh political economists brings out the point, I wish to make—the interest of Scottish thinkers of the time in the ultimate origins of man, the nature of primitive society and the beginnings of language and literature. This enquiry into origins was particularly associated with Thomas Blackwell, Professor of Greek at Marischal

College, Aberdeen, from 1723 to 1757, and its best-known exponent was a pupil of his, James Burnett, later Lord Monboddo².

Mention of Lord Monboddo, I am afraid, is usually met with a smile. The name itself (at least to unregenerate English ears) is itself slightly ridiculous; we remember Johnson and Boswell visiting him, and the stories of his ardent belief that we were all born with tails but that an international conspiracy of midwives, adroit with their scissors, prevented the truth being known; we recall legends of his hailing a coach during a rain-storm to carry his wig while he continued to walk. Nor if we read Peacock can we forget, in *Melincourt*, that engaging anthropoid Sir Oran Haut-ton, who came straight out of Monboddo and successfully contested the election of a rotten borough. But while Monboddo was charmingly eccentric and whimsical, he had a very acute mind, and in his *Ancient Metaphysics* (1779-99) and still more in his *Origin and Progress of Language* (1773-92) he develops certain important themes which were being discussed by the circle of philosophers to which he belonged and which were concerned with the physical and social evolution of man. I would remark is passing that Monboddo's linguistic theories are regarded by students in these fields as having a notable historical interest in themselves. Clearly then he is due for a re-assessment of his place in 18th century thought, and particularly for his significance in the development of ideas about primitive man.

What follows is familiar enough to the student of the history of ideas but has not I believe been looked at from the viewpoint of the archaeologist or the anthropologist considering the evolution of his own studies in Britain. We cannot understand our own modes of thought, and the presuppositions on which they are based, without a knowledge of their background; still less can we understand the climate of antiquarian thought in which Scott grew up without an understanding of the particular development which took place, particularly in Scotland, in the second half of the 18th century.

Thinkers in the Middle Ages, elaborating and adapting to Christian modes certain ideas current in classical times, had constructed a concept of the universe, and of man's place in it, which persisted and became known in post-medieval times by various names of which 'The Great Chain of Being' is the most convenient. This concept involved theological presuppositions of which the ideas of an ordered universe of pre-ordained divine plan, and of the boundless plenitude of God's creation, were equally involved. A completely satisfying and harmonious system would only be one in which all created things had their appointed place, immutably fixed and in direct relation one to another, and one in which the infinite possibilities of divine invention could be exercised. The concept of a chain of being from the lowliest inanimate object, through plants, animals, man, and so on into the hierarchies of Hell and Heaven to reach its consummation in the Creator, gave a satisfying framework within which all natural phenomena could be fitted, and within the subtle gradations of which new discoveries (such as those revealed by the first microscopes) could easily be placed in recognition of the divine plenitude which allowed of no missing link in the chain.

You will see I have used a phrase of common currency in the late 19th century and one still occasionally in use without thought of its derivation from the ancient concept of the chain of being; after the appearance of the *Origin of Species* in 1859, the Missing Link was eagerly in demand—so much so that in Sussex in 1912 ingenious arrangements were made for his convenient appearance. But by Charles Darwin's time an innovation had

² The discussion of the Scottish primitivists which follows is based largely on Arthur Lovejoy, *The Great Chain of Being* (1933); 'Monboddo and Rousseau', *Mod. Philology*, xxx (1933), 275, and 'The Supposed Primitivism of Rousseau's Discourse on Inequality', *ibid.*, xxi, 165; and Lois Whitney, 'English Primitivistic Theories of Epic Origins', *ibid.*, 337.

been made in the concept, and indeed his grandfather, Erasmus Darwin, had been instrumental in popularizing it. In its original form, the idea of the Great Chain contained no time-element. The pattern had been made, every link forged, in the mind of the Creator before the opening chapter of Genesis. But by the 18th century there arose in more than one mind the idea of temporalizing the Chain of Being and seeing in it a process, still of course God-willed, in which the links were added one by one to join the lowest to the highest. In this way rudimentary schemes of evolution, both natural within the whole universe and social and technological within mankind itself, arose, not *in vacuo*, but as the result of modifying an existing and long-standing concept of the universe. These were the ideas which were being discussed in Scotland by Monboddo, Blackwell, Lord Kames and others before the middle of the 18th century.

They did not wholly originate these ideas; their debt to Montesquieu and Rousseau is obvious and acknowledged, but Rousseau's scheme of social evolution was only contained in a footnote to his famous *Discourse on Inequality* and it was left to Monboddo to develop the idea and state it at length. This is not the place to discuss Monboddo's evolutionary ideas, but we may notice his exposition in outline. He starts with a state of nature, 'nasty and brutish enough to satisfy Hobbes, followed by a primitive condition which he believed to be represented by the anthropoid apes, which he regarded as men who had not developed to his next stage, that represented by the surviving primitive peoples described in travellers' stories from the 16th century onwards, and so through the barbarians of antiquity to the ancient civilizations and their modern descendants. Other similar sequences in social evolution were advanced by Monboddo's contemporaries, some of which, such as Pinkerton's savage, pastoral, barbaric and civilized stages (1785) give us a clue to the background of Morgan's, and following him Engels' and Marx's, lines of thought in the 19th century.

Mixed up with this was the famous myth of the noble savage, which (although of course implicit in the ideas of a Golden Age current in antiquity) gained increasing favour in Europe after the discovery of the American Indians, with whose state of culture it had been possible to equate, in Elizabethan times, that of the Ancient Britons. All the circumstances for an uncritical idealization of the past were in fact present, though to a classic like Monboddo the Golden Age was to be found in ancient Greece, 'that most perfect state' of mankind. But other tendencies were at work to make possible an idealization of barbarism, and that in Britain itself.

From the speculations on the origin of language and literature among members of the Monboddo circle in Aberdeen and Edinburgh there arose the view that 'poetry is as old as mankind, coeval with the human race'. 'In order to explore the rise of Poetry', wrote Blair in 1783, 'we must have recourse to the deserts and the wilds; we must go back to the age of hunters and of shepherds; to the highest antiquity'. If you were a classic you could turn to Homer, for by a development of the basic idea of poetry and song as man's first coherent utterance it was thought that epic poetry was the earliest form: 'nature and common sense had supplied to these old simple bards the want of critical art, and taught them some of the most essential rules of Epic Poetry'. But Homer, alas, was not a Scot, and there was nothing nearer than the Scandinavian *Edda* when one looked for a home-grown product. To the rescue came James Macpherson, who in 1759 produced the first of his alleged fragments of ancient Gaelic epic poetry, and within a few years *Ossian* had made its mark in Macpherson's nicely calculated Romantic invention. Here was what one writer called a 'noble confirmation' of the theory of primitive poetry; *Ossian* was seriously and elaborately compared with the *Iliad*, on occasion to the disadvantage of the latter.

You may think I have strayed far away from my avowed theme, the antiquarian antecedents of Sir Walter Scott. But can one ignore in any consideration of his poems and novels this episode in Scottish thought, these conjectures on 'the infancy of mankind', making possible on the one hand the romantic idealization of the past and on the other finding in the ancient barbarian world the origins of poetry, whether in Homeric Greece or with Fingal and Ossian? Percy, whose *Reliques* are an acknowledged influence on Scott the collector (and inventor) of Border ballads, was fully involved in the ideas on the origins of epic poetry we have been reviewing, and Scott himself may well have regarded his championing of the ballads as the most ancient recoverable Scots poetry as the Lowlander's answer to Macpherson. Indeed, something of this may be implicit in the Antiquary's ridicule of Ossian in his conversations with the Highlander Hector M'Intyre. In his Introduction to the *Minstrelsey* he expresses the view that 'the more rude and wild the state of society, the more general and violent is the impulse received from poetry and music. The muse . . . records in the lays of inspiration, the history, the lays, the very religion of savages'. And so in the romantic medievalism of the poems and the no less romantic approach to the past in the Waverley Novels, Scott was writing for a public already favourably inclined to such sentiments, as the result of ideas that had been in the air for half a century or so and which had themselves contributed in no little measure to Scott's own temper of thought.

To sum up then we see in Sir Walter Scott, and in his creation Jonathan Oldbuck, the meeting-place of two traditions of antiquarian thought. Of these the senior was that directly deriving from the Renaissance, coming through from Camden to Sir John Clerk and General Roy; empirical, questioning, practical; heir to the lucidity and formality of classical thought and language. To Scott the man of romantic sensibility, poet and story-writer, such a tradition could never but be alien; even, as on the Kaim of Kinprunes, a target for his particular ridicule. But the novel speculations on ancient man, even though they had originated in the uncongenial setting of professors, lawyers and political economists, allowed of a more liberal and poetic interpretation. The general decline in British historical studies in the second half of the 18th century made an idealized version of the Middle Ages easier to accept than in the more critical atmosphere of the high scholastic traditions of the Restoration, and in England this romantic approach, especially to medieval architecture, had been in full swing since the 1740's: Strawberry Hill was finished by 1753. With the ideas of the origins of epic poetry evolved by the Scottish primitivists in the air, the ballads, real and invented, would be sure of a sympathetic reception, and Scott as Mr Derrydown in Peacock's *Melincourt* (1817), asserting the superiority of *Chevy Chase* and *Auld Robin Gray* over *Paradise Lost*, reminds us not a little of the champions of Ossian as against Homer. Just as Sir John Clerk had built Mavisbank as a tangible memorial to his faith in the classical tradition, Abbotsford finally emerged as the architectural embodiment of the fictitious Middle Ages which Scott had created as the inspired spokesman of the romantic antiquarianism which he had so eagerly encouraged to take its place.

Books Received

The inclusion of a book in this list does not preclude its subsequent review

- FOUNDATIONS IN THE DUST, by SETON LLOYD. Penguin Books. 2s 6d. [This excellent and most readable book was first published in 1947].
- SOME RECORDS OF ETHIOPIA, 1593-1646, being extracts from the *History of High Ethiopia or Abassia*, by Manoel de Almeida, together with Bahrey's *History of the Galla*; translated and edited by C. F. BECKINGHAM and G. W. B. HUNTINGFORD. Hakluyt Society, Series II, Vol. CVII, 1954. [A most useful piece of work; the first 96 pages is the only account in English of the ethnology and history of S.W. Ethiopia].
- THE UNWRITTEN LAW IN ALBANIA, by the late MARGARET HASLUCK, ed. by J. H. Hutton. Cambridge U.P., 1954. 30s.
- SAALBURG JAHRBUCH, 1954 and 1955. De Gruyter, DM. 10 and 12.
- MAP OF MONASTIC BRITAIN, South Sheet. Ordnance Survey, 1954. 9s. [Second edition].
- BULLETIN OF THE ISRAEL EXPLORATION SOCIETY, Vol. XVIII, 3-4, 1954.
- THE THEORY OF THE MIXED CONSTITUTION IN ANTIQUITY, by KURT VON FRITZ. Columbia U.P., N.Y., 1954. (London: G. Cumberlege, £3).
- RIVISTA UNIVERSITARIA, Ano XLII, No. 105. Semestre de 1953. Universidad Nacional del Cuzco, Peru.
- PREHISTORIC STONE IMPLEMENTS OF N.E. ARIZONA, by R. B. WOODBURY. Peabody Mus., Cambridge, Mass., 1954.
- ARCHAEOLOGICAL FISHBONES, collected by E. W. GIFFORD; by H. W. FOWLER. Honolulu Museum Bulletin, 214.
- RECENT PUBLICATIONS, mainly in Old World Palaeolithic Archaeology, compiled by HALLAM L. MOVIUS, JR., and ROSAMOND R. FIELD, Peabody Museum, Harvard Univ. No. 8: Feb., 1955. [There are few things more tedious to compile or more useful when published than bibliographies; we all owe a debt of gratitude to the compilers of this one].

Notes and News

ANTLER-COMBS*

Professor Stuart Piggott, in his recent book *The Neolithic Cultures of the British Isles*, refers to the importance of skin-dressing in the Windmill Hill culture which he suggests is illustrated by the presence of antler-combs whose use, he says, 'is explained by reference to the precisely similar objects, named Kumotin, used by the Eskimo of Point Barrow for removing loose coarse hair from deer-skins', which use is 'precisely in

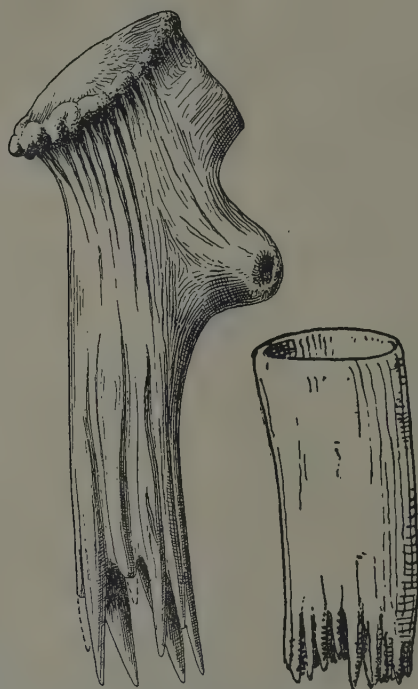


FIG. 1. ANTLER-COMBS FROM WINDMILL HILL (left)
AND POINT BARROW (right)

accordance with the other evidence for extensive skin-dressing carried out in the camps'. There can be no reasonable doubt about the vital importance of an elementary kind of leather to neolithic and indeed to much earlier man. It might be said that the provision of simple tools was first suggested by attempts to manipulate raw skins into usable form, and that tool-making developed concurrently with the craft of leather-making which was, perhaps, in the earliest times a reason for hunting only secondary to the urge for food. But Professor Piggott is surely mistaken in suggesting that antler-combs were in any way

* We wish to thank Professor Piggott for most kindly making the drawings (FIG. 1).

connected with skin-dressing. His own reference, from the Ninth Annual Report of the Bureau of Ethnology (Washington 1887-8) makes this clear, although not so clear as might be, for it is actually to be found in a section dealing with the dressing of skins. Nevertheless, what the author actually said was: 'The loosened hairs on a deerskin garment are removed by means of a comb made of a section of the beam of an antler' and goes on to suggest that another purpose of the combing operation was the removal of lice from which, he thinks, the tool's name derived, although careful to add that Eskimo questioned did not agree that there was in fact any connection between the rather similar words for 'comb' and 'lice'.

Eskimo, when making dressed leather as distinct from fur-skins, employ fermentation promoted by damp and heat, to remove both hair and epidermis which putrifies rapidly and comes away easily under such conditions. A later use of this principle, still sometimes employed, was the 'sweating' of sheepskins to facilitate removal of wool without damaging it. With such a simple method available (one which was probably a very early discovery) there would be no purpose in laboriously removing hair with a comb whose sharp teeth would readily damage the pelt. But loose hair which could be salvaged from skin garments would, in other cultures, have many uses, for example for felted materials (if, as we can believe, 'leather' was man's first manufacture, hair-felt was the next) or to provide fibres for spinning and subsequent weaving. From this to the operation of 'carding' vegetable fibres—the purpose for which it has generally been assumed antler-combs were made—would be a natural step, and they would also be used for carding wool. Perhaps, in this little-known practice of the Eskimo we can perceive the primary purpose of the antler-comb, for it is reasonable to suppose that animal hair, ready to use, preceded the use, for weaving, of vegetable fibres which require preparation.

The traditional tools for skin-working, from Palaeolithic times, were the well-known 'scraper' which could be used for removal of flesh adhering to the skin, for the removal of loosened epidermis and hair, and for breaking up coagulations of dried fibres, and another tool, hardly ever mentioned by archaeologists, the 'slicker', a smooth, blunt-edged bone or stone with which fat or brain-substance could be worked into dry and stiff pelts to soften them, or, in the case of seal or walrus skins, for squeezing out surplus blubber. The use of brain-substance would, by reason of its phosphorous content, result in a primitive tannage and was possibly the primary ancestor of the oil-oxygenation process by which, in later times, 'chamoised' and 'buff' leathers were made.

JOHN W. WATERER.

A NEOLITHIC ENCLOSURE AT SPIENNES, BELGIUM

A very interesting find turned up recently at Spiennes during examination of air photographs made in the spring of 1954 in south Belgium. This photo, PLATE I, shows part of a double-ditched enclosure, now ploughed flat and visible as a crop-site in a wheat field.

Spiennes has long been known as a neolithic site of first-rate importance. During the cutting of a spur railroad line from Mons to Charleroi, just visible in the photo and noted in the drawing (FIG. 1), a mining centre of considerable extent was found. The flints extracted and worked on the spot have been extensively discussed in the literature. Studies of the mining technique have also been attempted from time to time. Excavations of sorts have been carried out during the past 90 years on the fields along the east bank of the river Trouille, just outside the right edge of the photo. Much information remains unpublished and, unfortunately, even unrecorded. The famous 'Spiennes section' was taken parallel to the railroad a bit to the east of the area shown on the other side of

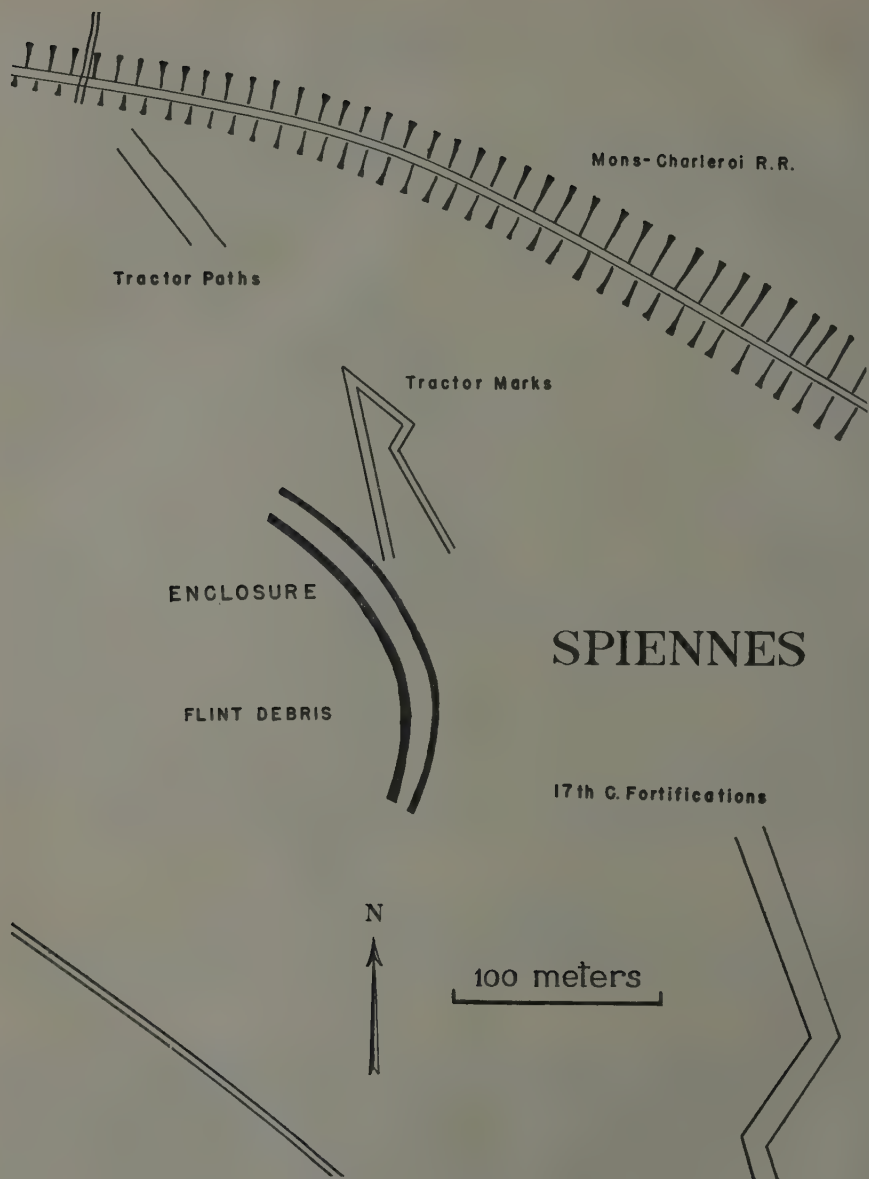
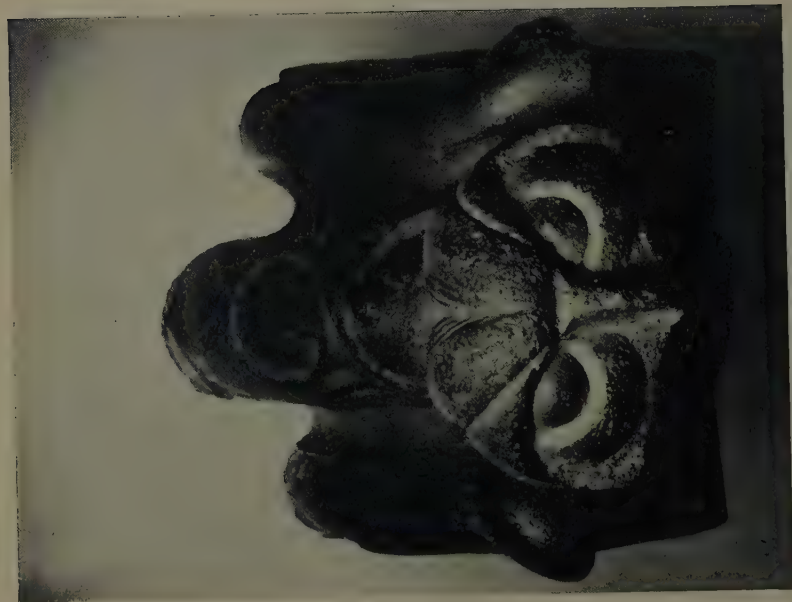


FIG. 1. DIAGRAM TO EXPLAIN THE AIR-PHOTOGRAPH (PLATE 1)

PLATE I

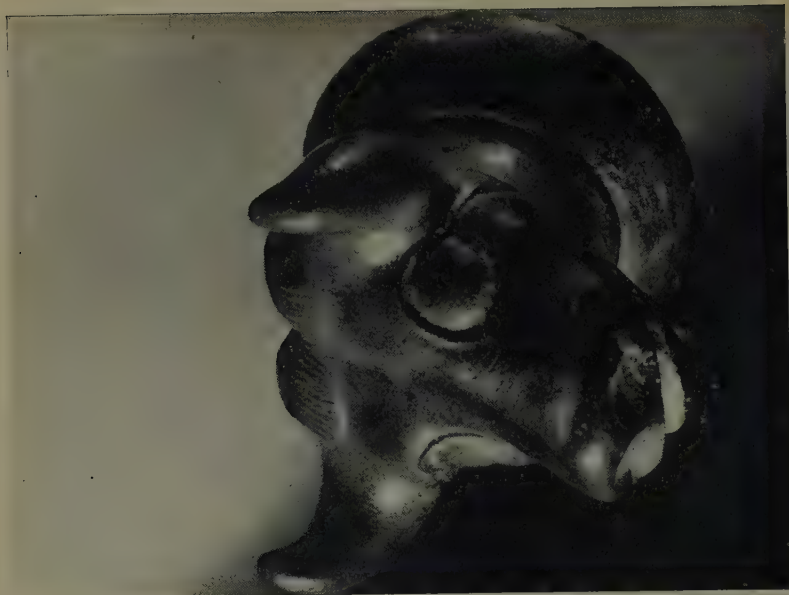


AIR-PHOTOGRAPH OF SPIENNES SHOWING DOUBLE-DITCHED ENCLOSURE
see explanatory diagram, p. 160



A

a. One of the bronze attachments in the form of an owl's head.



B

b. One of the six bronze bulls' heads

DETAILS FROM THE BRÅ CAULDRON

PLATE III



A



B

PALACE OF DARIUS. RELIEFS ON FAÇADE OF WESTERN STAIRWAY

- a.* Panel with lion-bull combat at southern end
b. Tribute-bearing delegations and inscription (art. III pers. *b*) of Artaxerxes III in centre



a. PALACE OF DARIUS. SPHINX ON FAÇADE OF SOUTHERN STAIRWAY



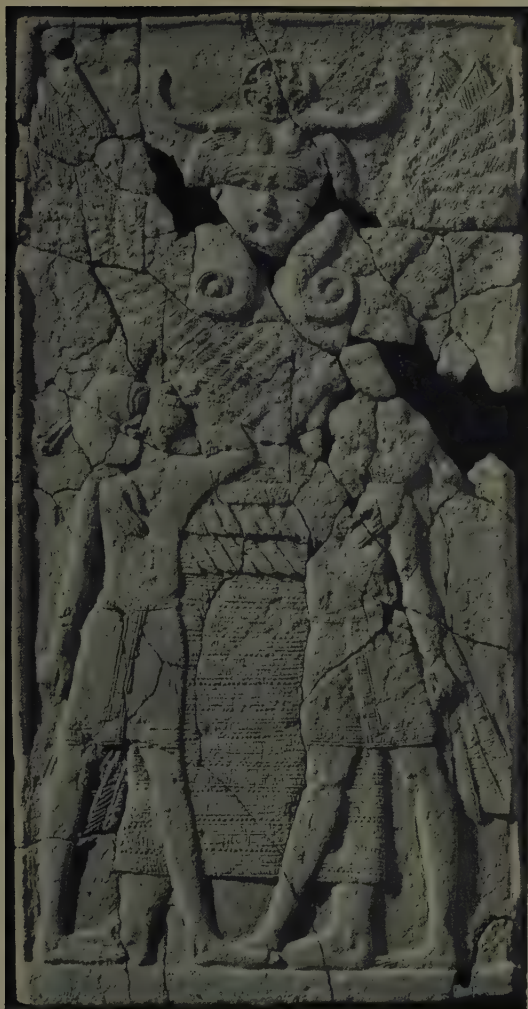
b. APADANA. LION-AND-BULL PANEL ON SOUTHERN SECTION OF CENTRAL FAÇADE OF EASTERN STAIRWAY



COUNCIL HALL, AHURAMAZDA SYMBOL ON NORTH JAMB OF EASTERN DOORWAY
OF MAIN HALL



TREASURY. CLOSE-UP OF SWORD OF KING'S WEAPON-BEARER



IVORY PANEL FROM UGARIT, DEPICTING PAIR
OF ROYAL SUCKLINGS

By courtesy of Professor Cl. F. A. Schaeffer

the Trouille. It shows some of the shafts and galleries of the extraction pits in vertical section.

The mines at Spiennes are now generally thought to belong to the late neolithic Michelsberg culture. They are often compared with Grimes Graves in Sussex and, like them, may even have been exploited down into the Bronze Age. The find in PLATE I of what appears to be a 'causeway camp' (without causeways) in such close proximity to the site is reminiscent of the supposed connection between the causeway camps of the Windmill Hill culture and the flint mines at Grimes Graves and elsewhere.

The village of Spiennes is located not far south-east of Mons in the Borinage, a busy industrial region of Belgium. This area is crossed by many small streams like the Trouille and possesses a fairly fertile soil. The landscape is characterized by gently rolling hills and numerous tip heaps from the coal mines which are the basis of economic life in the district. The main group of galleries and shafts of the Spiennes flint mines are located on the west slope of a small hill, the Camp à Cayaux, about 500 metres east of the right edge of PLATE I. The new site, which one hopes is the habitation area, faces the mines directly across the stream. It is directly south of a smaller and lesser known group of shafts on the other side of the railroad which have never been fully investigated.

PLATE I shows, as drawn in FIG. 1, part of the circumference of a double-ditched enclosure. The photo is part of one taken with a Wild mapping camera of 11.4 cm. focal length at an altitude of 100 metres on the 28th of May 1954 in the mid-afternoon. The large field was planted in winter wheat which seems to have grown more vigorously over the ditches after the spring rains. The other fields which may contain the complete line of ditches were planted in other crops. The white streaks inside the area of the enclosure were found to be due to large quantities of flint debris and half-finished implements turned up by the plough. The angular double lines which just enter the lower right part of PLATE I are a crop site of the defence works constructed by the French during the wars of Louis XIV, according to the map of the campaign by the Chevalier de Beaurain. They are also precisely indicated on the map of Ferraris, made during the 1770's. The fortifications now continue as a well-defined crop site for many kilometres.

Ditched enclosures, like those of Urmitz and Mayen in Germany, are not unknown on the continent, but this seems to be the first direct association of such earthworks with flint mines in a manner analogous to English examples. Further study of the site is in progress.

IRWIN SCOLLAR.

THE ORIGIN OF THE NECKED AXE

In ANTIQUITY XXIX, p. 35, Mr Balfour-Paul asks for examples of the necked axe outside Darfur. In Darfur the locality *par excellence* for these axes, as Mr Balfour-Paul reminds us, is the Wadi Howar, which 'may well have reached the Nile in the Dongola region'. I have no doubt that it did—via the Wadi el Ga'ab, which runs into the Nile north of Dongola just opposite Kerma. Kerma was the residence of the native ruler of Cush in the Second Intermediate Period, c. 1785–1680 B.C. Reisner, who excavated Kerma, has published (*Harvard African Studies* VI (1923), 'Kerma IV–V', pl. 62, fig. 2, nos. 6 and 7) from there several stone axes which are clearly the poor man's copy of the two-lugged copper axe. The latter was in use in Egypt throughout the dynastic period, having first appeared in the First Dynasty, c. 3000 B.C. (see Petrie, *Tombs of the Courtiers*, pl. 5, fig. 22). There is another stone example in the Khartoum Museum which I picked up at Kerma. For examples of two-lugged stone axes from Egypt, see Petrie, *Koptos*, pl. 2, fig. 13, and *Prehistoric Egypt*, pl. 27, figs. 19–21, 23–6. In Plate 4 of Newbold's article in *S.N.R.* VII (1924)—opposite p. 62—the upper row of examples are

nearer to the prototype than the lower row (which fairly closely resemble Mr Balfour-Paul's axe from Jebel Otash in north-western Darfur). These latter are therefore presumably later than the former ; and as none of the axes found well inside Darfur are of the form nearer the prototype, it appears probable that the distribution was from Egypt to Kerma, thence along the Wadi Howar westward, and from there, when desiccation began to set in, southwards into Darfur.

Other examples of two-lugged stone axes were found at Sesibi in the Sudan (Egypt Exploration Society excavation as yet unpublished) and at sites near Agordat in Eritrea (see my forthcoming paper in *Kush* No. 2). They have also been found in Kenya—see Mary D. Leakey, 'Notes on the Ground and Polished Stone Axes of East Africa' in the *Journal of the East Africa and Uganda Natural History Society*, xvii (1943) pl. 32, fig. 3.

A. J. ARKELL.

In the Musée de l'Homme, Palais du Chaillot, Paris, are necked axes (not all, however, of the same type) from Ténéré (E. of the Air Massif), and from Tibesti.

O.G.S.C.

SOUTH AMERICAN PREHISTORY

MR G. H. S. BUSHNELL writes :—

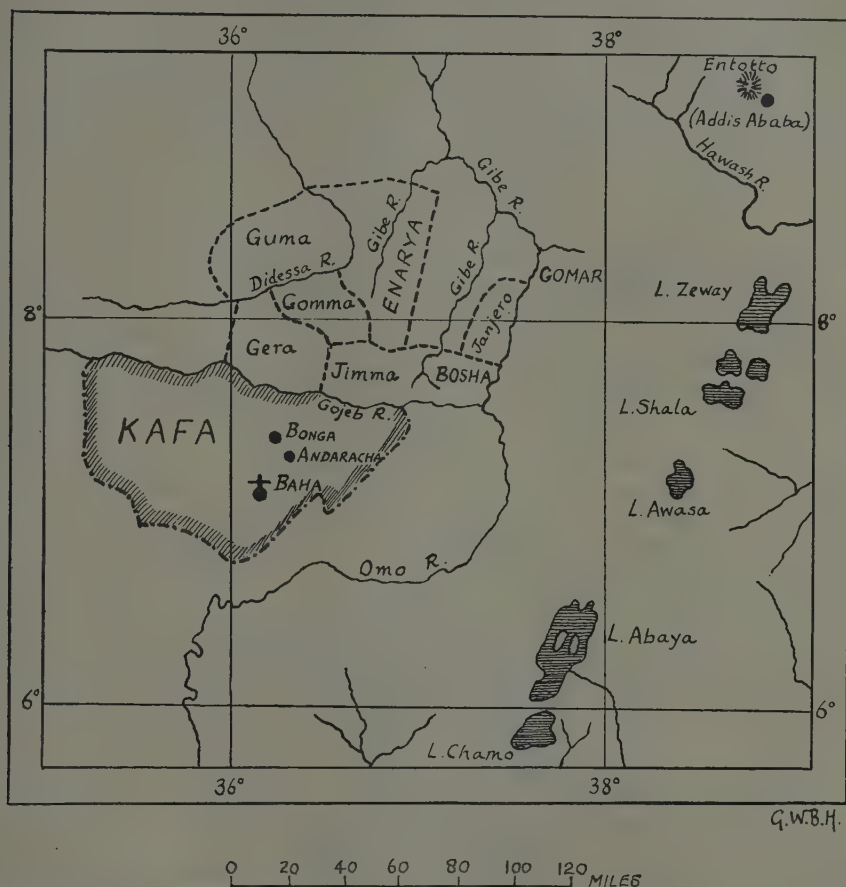
'My friend Professor Pericot has made an able summary in your issue No. 114 of Professor Menghin's two articles on Patagonia in *Runa* Vol. v, and I refer in the following remarks only to the article "Fundamentos Cronológicos de la Prehistoria de Patagonia". I confess that the review left me bewildered by a spate of new names and far-reaching conjectures, so I turned to Menghin's actual article in the hope of finding a fuller description of the evidence and some illustrations of the material, but found little which was not in the review and no illustrations. What emerges is that Menghin spent three months in the field in 1951 and less than three months in 1952, during which time he ranged over a wide area in southern Chubut and northern Santa Cruz. He excavated in some caves, but it is not at all clear how the collecting on the terraces and in other places was done. The dating is based on geological correlations, which require confirmation.

'What the whole thing amounts to is a reconnaissance, and we now need a series of careful excavations at selected points. When these have been sufficiently published, it will be time to put forward hypotheses. It is regrettable that Professor Menghin has put the cart before the horse'.

THE INSCRIPTION OF BAHA IN KAFA

One of the remotest Christian churches in Africa is to be found at Baha in the once independent kingdom of Kafa in South-west Ethiopia. Here, in a strongly pagan land, where even the Sky-God Yero was hard put to maintain his supremacy in the face of a dominating spirit-cult, a church dedicated to St. George (Giyorgis) was founded between 1586 and 1593. According to tradition the founder was a certain Shipenao in the reign of Sartsa Dengel king of Ethiopia (1563-1595). This man, whose real name was Sepenhi, was the pagan governor of the nearby state of Enarya, and an ally of king Sartsa Dengel. In the late 16th century the Galla, who had begun to invade Ethiopia from the south about 1522, reached the Enarya region. Sartsa Dengel spent much of his time fighting them, and when according to the ecclesiastic Bahrey he could find no Galla to fight, 'he decided to fight the devil instead, and snatch from him the souls of the Pagans. He therefore sent for the peoples of Enarya, Bosha and Gomar, and said to them, "Become

Christians!" And they became Christians, and were baptized with Christian baptism¹. It is to this period that the introduction of Christianity to Kafa is to be attributed, and Shipenao, though a pagan, is credited with the building of the church. But in fact he was dead by 1586, and had been succeeded by another pagan, Badancho, who was included



in Sartsa Dengel's wholesale conversion. We do not know whether Shipenao was converted earlier; but at any rate he figures in the traditions of Kafa (which Sartsa Dengel was unable to conquer) as a Christian worker of wonders, and is said not only to have built the church at Baha, but to have made the pilgrimage to Jerusalem, whence he

¹ 'History of the Galla', chapter 16 (in *Some Records of Ethiopia* (Hakluyt Society, 1954)), pp. LIX, 124.

brought an altar-stone for the church. The building itself is circular, like the churches of Ethiopia in general, and is surrounded by a grove of trees ; it has been rebuilt many times.

The French missionary Father Léon des Avanchers found here an altar-stone, *tābot*, believed to be the very one brought by Shipenao from Jerusalem. It bore an inscription which was published in a somewhat faulty form by Cecchi in his *Da Zeila alle frontiere del Caffa* (1885, vol. II, p. 484), and interpreted by Cardinal Massaja as recording the erection of altars by, or in the time of, Sartsa Dengel. Massaja apparently read the second word as *hatsē*, 'his majesty' ; but it is not possible to get this out of Cecchi's copy², though the word which follows (if correctly copied) is certainly Dengel. This is Cecchi's copy :

ዝተቦት :

ዝጉለ(?)

ድንግል :

ታቦተ :

ቅድስ :

ጊዮ(ርጊሰ)

ወእግዝእትነ :

ማርያም :

ዝተቦት :

ለዘአምላክ :

ዘሀንጸ :

ሠሁርፀ.....

ግር....

A possible alternative version of the text is this :

1. ; . . . za tābot zaggaba Dengel
of altar he placed Dengel
2. tābot Qeddus Giyorgis
altar Saint George
3. wa egze'etna Māryām
and Lady Our Mary
4. za tābot la za 'amlak
of altar to God
5. wa hannatsa wa haratsa ger
and he built and he broke up ?

The last word might possibly be something like *germā*, and interpreted as 'authority', i.e. of the pagan priests, or 'fear', of the pagan spirits. G. W. B. HUNTINGFORD.

² Unless we assume an even greater degree of error in the copy than is apparent, in which case a violent emendation could produce *sartsa* from the three letters given.

Reviews

THE PLACE-NAMES OF OXFORDSHIRE. By MARGARET GELLING. *English Place-Name Society. Vols. XXIII and XXIV (pp. LIV, 518). Cambridge University Press, 1954. Price, 30s each.*

The appearance of new volumes of the *E.P.N.S.* can still, after the lapse of more than 30 years, whet the appetite of the addict; but it must be said that these volumes, like several recent ones, show a sad declension from the old standards. There is no lack of industry, and the collection of material (largely made by Lady Stenton) is on the old lavish scale, but there is a lifeless, mechanical air about it all, a lack of learning, a lack of courage, a lack of imagination. It would be unreasonable to demand of the authors of all these volumes the etymological genius and almost superhuman energy of Allen Mawer or Professor Ekwall, but we may fairly expect a minimum equipment in philology, capacity to read a map intelligently, some knowledge of botany (particularly plant ecology), farming, history, and even archaeology; and sufficient interest in their subject to go and look at a place for themselves when they cannot explain its name certainly from linguistic evidence alone. It cannot be said that Miss Gelling entirely fills the bill. She is particularly liable to be led astray by maps. An example of this is to be found on p. 26 under Binsey, where she writes of the lost name *Thornebury*, 'an alternative name for Binsey. It means "thorn-tree hill" . . . possibly referring to the round hill marked on the map to the north-east'. It is true that the words 'Round Hill' appear upon the 1 inch map, but they apply to a small round barrow on Port Meadow, half a mile away, on the other side of the Thames. Similarly on p. 187, of the lost *Chestreweye* in Sandford, she says 'the nearest earthwork is just south of Radley, Berks, about two miles away'. Here again the map has misled; one of the barrows by the Thames (on the opposite bank) is called 'earthwork', but it is surely clear that '*Chestreweye*' must refer to the Oxford-Dorchester road which runs through Sandford. One of the most notable characteristics of Old English toponymy is an extreme sensitiveness to small topographical irregularities and natural objects and the *relation* between them. The makers of our place names had too nice a sense of juxtaposition to name a place after a barrow a mile or two away on the other side of a wide and deep river.

Oxfordshire is admittedly an awkward county to deal with—it has neither topographical unity (a point well brought out by Dr W. J. Arkell in his valuable note on the geology of the area, contributed to the Introduction), nor clear-cut linguistic divisions; the major place-names have, of course, been dealt with by H. Alexander and Professor Ekwall, and the Oxford street-names by H. E. Salter. The policy adopted, therefore, as in many recent volumes, is to devote a minimum amount of room to the discussion of major names, and a maximum to recording minor and field-names. The result is inevitably to make the book largely unreadable, for field names are seldom recorded early enough to enable them to be elucidated if obscure, they are for the most part not intrinsically interesting, and the highly condensed manner in which they are dealt with is singularly unpalatable. There are far too many entries of this kind: 'HOLMES'S Fm., WOOD (both 6 inch). Cf. *Holmeseth* 1246-7 Ass. v. hæþ and cf. Holme Copse in Goring 53'. The diligent reader who looks up all these cross-references will still be in the dark as to the relation between these various names, and may be forgiven for wondering whether the author and editor are much wiser.

The fact is that the publication of Professor Ekwall's *Dictionary of English Place-Names*, and the cumulative effect of the E.P.N.S.'s own volumes have discouraged subsequent writers from the detailed discussion of difficult names, and driven them to filling out their volumes with such stuff as that quoted above. Has not the time come for the Council and Editors of the Society to reconsider their plans? Might not the Master be more properly honoured, not by accepting his explanations wholesale, but by putting them to the test in the field? Professor Ekwall, in those annual visits which were one of the pleasures of pre-war summers, did manage to visit a prodigious number of places, but obviously only a fraction of the whole. This reviewer, at all events, would much rather have further discussion of major names, based on personal knowledge of the places as well as linguistic evidence, than long lists of uninteresting field-names. Another line that might now be pursued with profit, is the reconsideration of the exact meaning of some common place-name elements in the light of the considerable amount of evidence collected during the 30 years' activity of the Society. The notes on place-name elements at the end of this and the Cumberland volumes are a step in this direction, but further discussion, comparison of material from other counties, and actual observation, might make it possible to determine much more closely the meaning of topographical terms. This list of elements is useful to the archaeologist, enabling him to turn up at once names containing such promising elements as *beorg*, *burh*, *byrgen*, *ceaster*, *hlæw* and so on. Another useful innovation is the printing, in an Appendix, of the boundaries of Oxfordshire charters. From these and from the body of the book it would be possible to cull a number of points of archaeological interest that need clearing up. What, for instance, is referred to in 'to fagan floran' in the bounds of Water Eaton? What are the burying places referred to in the names of Berring's Wood in Glympton and Berins Hill in Ipsden? What was the *hord* or treasure commemorated in Hordley (Wootton)? What is the relation between the names Alchester, Chesterton and Bicester? (The suggestion that *ceaster* in the last two names refers to the Roman town of Alchester may be correct, but certainly needs further investigation). What was the *mynster* from which Minster Lovell took its name, recorded in the Domesday Survey 120 years before the foundation of a priory there by Maud Lovel? These and other questions await the attention of local historians and archaeologists.

E. G. WITHEYCOMBE.

THE ANGLO-SAXON CHRONICLE. *Translated and edited by G. N. GARMONSWAY.* *Everyman's Library* No. 624. London: J. M. Dent and Sons Ltd. (New York: E. P. Dutton and Co. Inc.). 1953. XLVIII+295 pp. Price, 6s.

This new translation replaces that of James Ingram, which until the present time formed No. 624 of *Everyman's Library*. It is almost superfluous to state that a new translation of the *Chronicle* needs no apology, for the versions of Ingram (1823) and Giles (1847), despite their undoubted merits, suffered from many inaccuracies and errors in translation, for which, however, their authors should not be too severely censured. It would be fairer to ascribe many of these shortcomings to the fact that Anglo-Saxon scholarship was not yet out of its infancy in the first half of the 19th century; the splendid band of German *Anglisten* whose work in this field has placed all subsequent scholars so greatly in their debt had scarcely begun to appear, while in England, though much valuable pioneer work had been done by Thorpe and Kemble, the stage was still waiting for Sweet, Napier and R. W. Chambers, to name but three outstanding scholars of English birth. It has indeed been regrettable that no more recent translations have been available for more than a century; and therefore the present translation, which eliminates the mistakes of these older versions, is most warmly to be welcomed.

A short prefatory note to the present version, contributed by Professor Bruce Dickens, amply illustrates the urgent need for a new and accurate translation. Due mention is made there of E. E. C. Gomme's version of 1909, which seemed likely to fill the need, but had to be withdrawn as it was considered to have infringed the copyright of Plummer's edition. Gomme was killed in the First World War; and when the copyright difficulty was apparently surmounted it was found that a satisfactory revision of Gomme's work would involve a complete resetting, and consequently this version was never re-issued. Hence the present version is the first since Ingram and Giles to be made readily accessible to the general public.

There is an excellent introduction, containing much valuable information on the various methods of dating used by the early annalists and the problems presented by the chronology of the *Chronicle*; the question whether King Alfred was responsible for the original compilation is also discussed. A further section deals with the history of the various manuscripts. The translation renders accurately and idiomatically all the annals in Plummer's edition, and corresponds page by page with the Anglo-Saxon; it thus represents a considerable advance on the composite version of Ingram, and will be of inestimable value to both scholars and students. Where misprints occur, these are very few and obvious. Variant readings, where not embodied in the translation, are rendered into English in the footnotes, and up-to-date identifications of place-names are given wherever possible. A useful appendix of technical terms is added at the end.

Enough has been said above to show the need for a new and accurate translation; and the present version can be said amply to fulfil its purpose. K. R. BROOKS.

ADAM'S ANCESTORS. By L. S. B. LEAKEY. 4th Edition, 1954. Methuen & Co. London. 235 pp., 22 plates, 33 line illustrations. 21s.

It is always pleasant to greet an old friend, especially when the years since his last appearance have tried his merit and added to his wisdom. The new version of *Adam's Ancestors* has been extensively rewritten; there are the numerous additions relating to discoveries made during the last twenty years, easily blended into the pattern of the book; the, in places, immature style of the earlier edition has given way to a more economical use of words. Nevertheless, not only in theme but also in personality, the book is our old acquaintance of 1934, improved with age and hence doubly welcome.

The first two general chapters, entitled 'the search for man's ancestors' and 'early man's environment', are followed by what may well be the best brief introduction in English to the making of flint implements. After another general chapter on the uses of primitive tools, Palaeolithic cultures, especially of Africa and Europe, are described and some suggestions made as to inter-relationships, and the cultural section of the book closes with a brief chapter on Palaeolithic art. The last few chapters review the story of man's physical evolution as told by the palaeontological record. As noted in the Preface, it would have been easy 'to extend the contents of almost every chapter into a full volume and still leave the story incomplete', and apologies are made in anticipation of comments on omissions. There will however be criticism of a number of points included in the book.

Nothing is gained, in the table (p. 15) illustrating the geological time-scale, by the omission of the Carboniferous period, nor is it wise to mislead the general reader by calling the whole Palaeozoic the 'Age of Invertebrates' without some qualification. Of more importance for the main theme, the view is taken (p. 21) that African pluvials are to be equated with European glacial periods and is used throughout the book as the basis for intercontinental comparisons. Yet only two pages later (p. 23) Leakey accepts

Simpson's elegant deductive theory of the explanation of Ice Ages, a theory which demands non-coincidence of pluvial and glacial periods! Concerning the Clactonian sequence, discussed at some length, the view is advanced (p. 82) that the Clacton and Jaywick forms are older than those of the Swanscombe Lower Gravels, on what seem rather doubtful grounds. Leakey has apparently overlooked the significance of the weathering of the Lower Loam at Swanscombe; one wonders as to the process by which the thick Middle Gravels could have been deposited with the dropping sea level he postulates, and how the statement (p. 83) that the industry 'of the Clacton and Jaywick deposits is distinctly less specialized and cruder than that from the basal gravels' at Swanscombe can be reconciled with the original description of the material where the reverse was maintained.

In the section dealing with the descent of man, chapter ix 'problems of human evolution' is perhaps the weakest in the book and is sadly misentitled. Leakey is throughout still in difficulties with his 'primitive' characters; hence his desire to exclude all hominid fossils except Swanscombe, Fontéchevade, Kanam and Kanjera from direct human ancestry. This view will not be easy to sustain in the face of the fact that evolution may proceed at different rates in different functional complexes of characters, with the dual implication that characters differ in taxonomic value according to the evolutionary stage attained and that to look for an 'unspecialized' ancestor at any particular stage may well be to search for someone who never existed. The Piltdown disclosures arrived too late for inclusion in the book.

Comparison of the new and old editions shows clearly the advances that have been made in the study of Prehistory since 1934; the discerning reader will perceive the extent of Leakey's own great contribution. It may be that the generalizations unavoidable in an introductory text could have been tempered on occasion with more words of caution. But for these, and for the criticisms of detail, the wealth of personal experience and opinion provides more than sufficient compensation.

D. F. ROBERTS.

ROMAN GAUL. By O. BROGAN. London, G. Bell and Sons, Ltd., 1953. Pp. x+250, with 51 figures and folding map. Price, 21s.

This is both a welcome and a well-timed book. It is welcome, not only for its own intrinsic merits, but because it has filled a long-felt gap. No single book on Roman Gaul in English was in existence. Yet no one can be genuinely interested in Roman Britain without wanting to cross the Channel and see what the Romans made of a people and culture in the neighbouring land of France kindred to those that they found in these islands. Mrs Brogan has now provided our travelling companion, a Gaulish counterpart to R. G. Collingwood's *Roman Britain* and *Archaeology of Roman Britain* and to I. A. Richmond's *Roman Britain in Pictures*, but with history, topography, monuments, social, industrial, commercial, and agricultural life, art, and religion all in one volume.

Roman Gaul is also well-timed as supplying an effective, if unpremeditated, answer to the diametrically opposed, and equally misleading, views of Rome's acquisition and treatment of her provinces, which have been aired in two recent brochures. The one maintains that the word 'conquered' is inadmissible as applied to the peoples whom Rome drew into the orbit of her dominion. The other announces that the sum total of Rome's achievement was to devastate the world by conquest and plunder and then proceed to patrol the ruins. In her Chapters I and III Mrs Brogan paints a realistic and sometimes grim picture of what initiation into the mysteries of Empire meant to those who were forced to go through it. Yet, as the bulk of her book reveals, this was but the inevitable prelude to a new order of liberation from fear, war, and insecurity, of civic,

rural, economic, and widely-enjoyed cultural development, such as the 'free' Celtic tribes had never experienced. In the realm of art, the fusion of Classical and Celtic conceptions produced a school of sculpture which is, at its best, not just 'provincial', but specifically and vigorously Gallic. In the sphere of religion, Gaul owed the visual representation of her gods to Rome, who thus ensured their survival and entry into her own pantheon. It was the Classical learning brought by Rome that was the mainstay of Gauls such as Ausonius, Sidonius Apollinaris, and Sulpicius Severus amidst the storms and trials of the barbarian incursions in the 4th and 5th centuries—an aspect of cultural history that might have been more fully developed in the concluding chapter.

Mrs Brogan has a clear and lively style, which makes her work easy and very enjoyable reading. The line-drawings and map are adequate, the photographs well-chosen and of high quality. There are four pages of Bibliography; but these do not compensate for what is a major defect of the book—a defect to be laid, to the reviewer's certain knowledge, not at the author's, but at the publishers' door, namely the total absence of detailed documentation. This means that, as a basis for further study, *Roman Gaul* is virtually useless. The student, even with the book-list to guide him, will find it very difficult to check the author's statements and to follow up many of the fascinating lines which she traces. It was surely a grave mistake thus to divorce what is 'popular' writing of the very best kind from scholarship. Concise, workmanlike notes and references, either placed at the end of each chapter or gathered together at the end of the book, would have trebled its value.

A few points of detail may be noted. P. 166: the 'large rectangular monument' at Saint-Bertrand-de-Comminges is a temple. P. 171: the interesting connection between the scenes from family-life and the mythological themes on the Igel grave-monument (it is hardly a 'column') should have been explained. Pp. 126, 180: the Nennig mosaic is not certainly of 2nd century date, but may be considerably later. P. 188 (second paragraph): for 'cornice' read 'pediment'.
J. M. C. TOYNBEE.

EARLY ANCÓN AND EARLY SUPE CULTURE. Chavín Horizon Sites of the Central Peruvian Coast. By GORDON R. WILLEY and JOHN M. CORBETT, with special sections by LILA M. O'NEALE, M. A. TOWLE, W. G. HAAG, MARSHALL T. NEWMAN and others. pp. XIX+180, 5 maps, 29 figs., 31 plates. *Columbia Studies in Archaeology and Ethnology*, Vol. III. *Columbia University Press, New York*, 1954.

The shell heaps of Ancón and Supe on the Central Coast of Peru were first described by Uhle many years ago. He regarded them as the homes of primitive fishermen. His collections were subsequently described by Kroeber and Strong, and it then became clear that these people possessed a culture of some complexity. Tello was the first to recognize that their pottery was related to that of Chavín, before its importance as an horizon style had been recognized as it has today. Drs Willey and Corbett were in Peru in 1941-2 on behalf of the Institute of Andean Research, and a good deal of their work there, in collaboration with Dr Duncan Strong, was published during the war (*Columbia Studies in Archaeology and Ethnology*, Vol. I, 1943), but after Strong left they worked at Ancón and Supe, and this publication is the result. It has been long delayed, owing to various causes which could not be avoided, but its chief object is to fill out our picture of the Chavín horizon rather than to introduce new and startling lines of thought, so there was no great need for haste.

The field work consisted of stratigraphical tests at Ancón and at three sites near Puerto de Supe, together with the clearance of a building at Supe and some burials there. Like Uhle, the excavators failed to find a cemetery at Ancón, but an extensive one has

since been found and is being excavated under the auspices of the Museo Nacional de Antropología y Arqueología at Lima. It had already produced formidable quantities of material when I visited Lima in 1951, and a great deal of additional information should be available when a report is published. The present report consists of descriptions of the excavations and the ceramics and other artifacts, followed by sections on particular finds, outstanding among which is a detailed report on the textiles by the late Professor Lila O'Neale. There is a thoughtful concluding section, which sums up the work and relates it to the Chavín horizon elsewhere.

The report as a whole is clear and straightforward. To anyone who has not handled the material it is not always obvious how the various pottery types are distinguished, for example the distinction between Ancón Zoned Punctate and Ancón Stippled seems somewhat arbitrary, but, however defined, they proved a useful chronological tool. The line drawings of sherds are good, but it would have been helpful if some lip and vessel forms had been shown by means of sections. As regards the plates, it is a pity that Columbia does not find a better method of reproduction, since much detail is lost in a greyish haze and some illustrations, e.g. Plate IX, are virtually useless. Something has gone wrong with the references to illustration numbers, particularly in the chapter on artifacts, where no fewer than eight mistakes were noted.

A few of the results may be briefly summarized. As a result of the careful analysis of the pottery, it was determined that the Ancón midden was occupied before the pottery-bearing sites at Supe, which in their turn remained in occupation later. Both areas have pottery of Chavín affiliations, and the existing belief that this is closer to that of the north highland site of Chavín than to that of the north coastal site of Cupisnique is confirmed. One of the Supe sites, Aspero, was distinguished by a lack of pottery and the presence of some sort of religious or community building, and its chronological position remains a mystery. Some spindle whorls bearing incisions picked out with paint applied after firing were found, and I am inclined to believe that the use of this sort of colour foreshadows its extensive employment on vessels at Paracas Cavernas. The weaving is something of a revelation; it is not as elaborate as it later became, but it is far from primitive and in addition to various types of plain weave, brocade and tapestry were employed, the latter technique being used to produce a remarkable feline-condor head design in the fullest Chavín tradition. Cotton was the usual material, but the occasional use of wool at this horizon was confirmed. Twined baskets in a remarkable state of preservation were recovered, and there were instances of twilling. The nets are of some interest. Besides the coil without foundation technique, the hitch or lark's head, known to us as the cow hitch, was used. This is still commonly used in South America, and I have seen an instance from the earlier preceramic level in the Chicama valley, so it has a long history. I understand that it is not used in Polynesia, and this should have some bearing on the question of trans-Pacific voyages, since netting techniques are among the most likely features to accompany such a voyage.

The general picture which emerges is one of compact village communities living near sheltered bays, which were suitable for fishing and shell-fish gathering. Although they also depended on the cultivation of maize and other plants, the nearest arable land at Ancón is now some ten kilometres away, though it is much nearer at Supe. The authors suggest, with some caution, that a greater run-off from the Andes in former times may have watered the small Ancón valley and so have provided more accessible land, but I would suggest, with equal caution, that the topography of the valley makes this doubtful, while the Peruvian Indian's contempt for distances may well have rendered it unnecessary.

The houses were supported on rough stone foundations, but nothing remains of the superstructure. The dead were buried in cemeteries outside the villages, each body in a shallow grave, in a flexed position, wrapped in textiles, but Uhle's suggestion of cannibalism was not substantiated by this work. The communities seem to have lived peacefully, but not in isolation, as is proved by the Chavín connections and the remains of llamas and their wool. The authors think that the lack of elaborate ceremonial buildings may denote cultural backwardness as compared with some of the Chavinoid areas, but the recent discovery of the large and elaborate cemetery at Ancón may indicate the presence of other and more advanced sites in the neighbourhood.

Finally, it is worth while to say that the authors accept the present tendency to use the term Formative to describe the status of the Chavín horizon, in preference to other terms which have been used. Since it is at a similar cultural level to the Central American Formative stage, this is a sensible course, the more so because the beginning of the Chavín horizon, at about 1000 B.C., falls within the Mexican Formative period. The final date is estimated in this book at A.D. 1, but it is only right to say that this is no more than an estimate and that it contradicts several radiocarbon dates which would shorten the period considerably.

G. H. S. BUSHNELL.

L'ARCHÉOLOGIE ET SES PROBLÈMES. By SIEGFRIED J. DE LAET. *Collection Latomus, vol. XVI; Brussels. 200 francs.*

The Professor of Archaeology in the University of Ghent produced in 1949 a brief, critical summary of archaeology and its methods which was well received. It was in Flemish and had therefore a very limited appeal to English readers. Now an enlarged and revised edition in French appears. It is excellent in every way—brief but comprehensive, clearly set out and clearly thought out, authoritative and well illustrated. Professor de Laet says he originally wrote this book for his own benefit and so that he could himself get clear the problems of methodology which he had been studying and teaching for many years. What a good thing he has done so, since the book is now for the benefit of all of us—teachers and students, professionals and amateurs. An enterprising English publisher should issue* an English edition of it as soon as he can. In the meantime this French edition is indispensable and most rewarding reading for all interested in the aims and methods of archaeology.

His chapters deal with the state of preservation of archaeological material (how much nicer this cold title sounds in French as 'le sol et ses archives'), the techniques of archaeological reconnaissance and excavation, the problems of relative and absolute dating, and the problems of interpretation. He is at his most original and valuable in the last two chapters on interpretation, when he deals with the limitations and possibilities of archaeology. And he provides us with a very useful and clear definition of archaeology which he, most properly, regards as a scientific auxiliary of history: 'L'archéologie trouvât enfin son domaine propre, qui est celui de la recherche, de l'étude et de l'interprétation historique de toutes les traces, de tous les restes matériels que les civilisations disparues ont laissés dans le sol. Ces traces, depuis le grandiose Colisée jusqu'à l'humble tesson de poterie grossière et mal cuite, sont étudiées sous tous leurs aspects mais en dernière analyse en fonction de leur valeur historique, en vue de la reconstruction de la civilisation des hommes du passé'. Here is a fine statement to set beside that excellent one with which Professor Richmond opened his *Archaeology and the After-Life in Pagan and Christian Imagery*.

* One such is doing so, as a result of this review. Ed.

Professor de Laet has many flattering things to say about the state of archaeology in Britain in relation to our antiquities laws, our national interest in archaeology, and the position of archaeology in our national education, which he contrasts with Belgium where archaeology seems wedded to institutes of art history. True and agreeable though what he says about us, is, we still have a long way to go even in Britain to ensure that we live up to de Laet's definition of archaeology in national practice and private aim. This book will do a lot to make us think clearly about archaeological methods, techniques and purposes.

GLYN DANIEL.

EXCAVATIONS AT STAR CARR. An Early Mesolithic site at Seamer near Scarborough, Yorkshire. By J. G. D. CLARK. *Cambridge University Press, 1954, 200 pp. with 24 plates and 80 text figures. Price, 63s.*

This book is a very important contribution to British prehistory. The Mesolithic period of Britain had already been to some extent elucidated, mostly through the work of Professor J. G. D. Clark himself. But there was still missing a large, properly excavated site with animal bones and bone implements preserved, a site situated in such a place that its age also could be found out by pollen analysis and the C14 method. Such a site is Star Carr, and of course it had to be Clark who excavated and published it: both have been done in a model way.

Star Carr is a bog-site, and in such a place conditions are good for that team-work between archaeologists and naturalists which in other countries, not least in Scandinavia, has produced good results, giving not only the culture, but also the environmental conditions of the dwelling-place.

The site was discovered in 1947 by Mr John Moore; the excavation was undertaken in the summers 1949, 1950 and 1951 under the auspices of the Prehistoric Society and of the Department of Archaeology and Anthropology at Cambridge under the leadership of Clark. The geology and botany were taken care of by Professor H. Godwin and Mr Walker, the zoology by Dr J. C. Fraser and Miss J. E. King, all of whom have written chapters in the book.

There were no real house-remains, but a kind of platform had been made on the swamp surface by throwing birch brushwood, stones and clay wads down on it. On this platform and around it was found a large number of archaeological specimens and animal bones. The flint implements were a few core axes, a large number of burins, scrapers, awls and microliths of rather primitive types. The bone implements were mostly barbed points, nearly all made of stag antler; besides there were a few axes and adzes of elk antler, some bone scrapers, bevelled points of antler, beads and pendants, and, most surprising, worked stag frontlets, probably used as head-dresses in ritual dances. Among the animal bones those of elk, red-deer and urus are predominating, but, in addition, roe deer, wild pig, beaver, wolf, fox, badger, hare, hedgehog, a pine marten and some birds were represented. There was no trace of the tame dog.

The geological-pollenanalytical investigation places the site in an early stage of the boreal period, and the C14 dating gives about 7000 B.C. This fits very well with the animal remains and with the culture, which has close connections with the Danish Maglemose culture. But what is most interesting is that it differs a good deal from the classical Maglemose culture and no doubt represents an earlier stage of it. It has some close connections with the earliest mesolithic site in Denmark, Klosterlund in Central Jutland, which also is dated to early boreal time. The flint implements are very similar (e.g. the many burins and the awls, which do not appear in the later Maglemose culture), but unluckily there are no bone or antler implements in the Klosterlund find. Barbed

antler points are very scarce in Denmark ; nearly all the leister-prongs in the large Maglemosian finds are of bone, not of antler ; an implement such as the elk-antler adze is well known in Denmark, but only as scattered finds, never on the Maglemosian sites ; now we know the age of them. To the curious frontlets we have no parallel.

Clark lays great stress on the 'groove and splinter' technique in which the antlers are worked to produce the material for barbed points ; a similar technique can be traced to palaeolithic time (Meiendorf). It is however the same technique that the Maglemosian people on the Danish sites used in their bone work. As a matter of fact it could hardly be done in any other way when the intention is to cut a splinter off from an antler and a limb bone.

The book is richly illustrated by photographs and drawings, mostly made by the author, and they are excellent. Altogether I can give my old friend Professor Clark my best compliments for this important contribution to European prehistory.

THIRKEL MATHIASSEN.

THE PREHISTORIC CULTURES OF THE HORN OF AFRICA. *By J. DESMOND*

CLARK. *Cambridge University Press, 1954. 374 pp., 52 plates, 36 text figures. Price, £5 5s.*

'All too seldom did the hazards of war bring people and places so fortuitously together', writes Mr Burkitt in his Foreword to this important book. During two-and-a-half years' war service in the Somalilands and eastern Ethiopia, Dr Clark covered a vast area which was practically unknown as far as prehistory is concerned. The present volume shows that he made the most of his opportunities. It is, as he points out, necessarily only a pioneer work, but it is all the more valuable for being so. His conclusions are based on a detailed consideration of evidence he assembled in the field, as well as a careful examination of all existing collections of stone age implements from the Horn (with the exception of those in Italy).

The book is in four parts : an Introduction, covering physical geography and the work of previous investigators ; the geology and stratigraphy of the area (which forms a basis for dating the cultures) ; the prehistoric sequence (including paintings and engravings) ; and correlations of cultures and climates with other areas in Africa and southern Arabia.

It was particularly important to discover whether evidence of past climatic changes in the Horn agreed with that of Kenya, Uganda and Tanganyika, where the sequence of pluvial and interpluvial periods is well established. Happily Dr Clark found a satisfactory agreement, which enabled him to make correlations with those territories. The dating of prehistoric cultures is almost entirely dependent on climatic correlations, for palaeontological evidence is sadly lacking in the Horn, and comparisons based on the typology of tools are generally unreliable.

The apparent retardation (or perhaps conservatism) of cultures in the Horn compared with those of East Africa proper is very striking. No culture has been discovered earlier than the Acheulio-Levalloisian, which is dated to the early Upper Pleistocene. This is followed by the Levalloisian, and then by the Stillbay (dated to the dry period between the end of the Gamblian pluvial and the onset of the first post-Pleistocene wet phase). Over the central and southern part of the Horn, the Stillbay is succeeded by the Magosian, during the first post-Pleistocene wet phase. In each case, these cultures appear to be later than they are in Kenya.

Contemporary with the Magosian, is a local culture in northern Somalia which has been named the Hargeisan. It is a blade and burin culture which may have originated in

western Ethiopia, judging by surface collections from this area (which is badly in need of exploration and may hold the key to many prehistoric puzzles). An accumulation of evidence suggests that western Ethiopia may have been a centre of cultural diffusion as well as being on the route of stone age migrations. The Horn, on the other hand, seems to have been a backwater until late stone age times, when cultural influences from the Saharan Neolithic may have penetrated. It appears unlikely that a land-connection with southern Arabia over the Bab-el-Mandeb straits existed after early Upper Pleistocene times (when a regression of the sea to -78 m. took place); this seems to rule out the Horn as a route for migrations from Asia, (except possibly by boat).

Mesolithic industries such as the microlithic Doian of southern Somalia (which has certain affinities with Neolithic B of the Fayum), and the Wilton of the north, lingered on in various forms until they were gradually superseded by metal. Before this, there is no evidence of cultivation or the keeping of stock in the Horn. Rock paintings and engravings are of no great antiquity; the earliest, from Ethiopia, represent pastoral scenes in a naturalistic style.

It is refreshing to find that Dr Clark's approach is ecological wherever possible, though the typological aspect is not neglected and tool inventories are included for reference. His observations on the modern inhabitants of the Horn are always interesting. Stratigraphical diagrams and photographs support the dating conclusions and Mrs Clark's drawings of implements are of a high standard. Particularly praiseworthy are the numerous distribution maps of cultures; these should be compulsory in a book of this kind, but they are regrettably rare. Two criticisms might be mentioned: the length of time taken to publish the book (the Preface is dated 1951)—and its expense.

SONIA COLE

ACTA ARCHAEOLOGICA Academiae Scientiarum Hungaricae, Vols. I-III (1951-53);
Budapest, 13 dollars a volume.

The papers in this new (and expensive) archaeological publication from Hungary are normally published in English, French or German, with résumés in Russian, and so make much important new material available to the Western student. In these first three volumes papers range from the palaeolithic to the earlier Middle Ages; there are copious illustrations in the text and as plates, and their standard is on the whole high.

Some of the more important papers are as follows: The Hungarian Solutrean culture is discussed by M. Gábori (Vol. III) at length, three phases being distinguished, beginning in the Würm II/III interstadial. The important Neolithic Baden Culture cemetery at Alsónémedi is described by J. Korek (I), with full specialist appendixes on the skeletal material; as well as 40 human burials there were two each of a cow and a calf. The Bronze Age is represented by the report on the 1948 excavations at the famous site of Tószeg by J. Csalog and A. Mozsolics, (II) again with detailed appendixes on the bones and other aspects of the site, such as the textile impressions on sherds. Evidence of domesticated horses appears in the earliest level (Tószeg A, the chronological equivalent of Szőreg I and antecedent to Kisapostag and Reinecke A1), and in Tószeg B there seems to have been an antler bridle cheek-piece from the older excavations; none appeared in 1948, but a fragment of a figurine of a horse was found.

Miss Mozsolics has devoted a special paper to the question of these antler cheek-pieces (III), which begin to appear unambiguously in Tószeg C and continue into Hallstatt times, when they become influenced by forms derived from the Thrako-Kimmerian series and those of the Scyths. This full treatment of the Hungarian material should lead

the way to a study of such types in other regions ; British archaeologists need hardly be reminded of their occurrence in our own Late Bronze Age.

The theme of horse domestication is taken up again by M. Párducz in his description of the Hallstatt cemetery at Szentes-Vekerzug (II) where horses were found buried in their harness, singly or in pairs, and in one instance with a four-wheeled cart. The iron bits derive from the Thrako-Kimmerian series and Párducz would date the cemetery to the end of Hallstatt C in the 6th century B.C., and look to Scythian influences. He naturally quotes the Czechoslovakian and German cart-burials of Hallstatt date and the finds in Hungary cited by him take their place as an eastward extension of the cart-burials now listed and mapped by Schiek for the Rhine-Upper Danube area (*Festschrift für Peter Goessler* (1954), 150).

Roman archaeology is represented by such papers as that by A. Radnóti and L. Barkóczi on the distribution of troops in Lower Pannonia, (I) and that by J. Szilágyi on the garrisons of the Pannonia-Quadi frontier (II). Scythian and Hun traditions are discussed by N. Fettich in his treatment of the well-known Siberian gold plaques (II) and by the papers of J. Harmatta and G. László on the golden bow of the Huns as a weapon of prestige (I); Harmatta also discusses the end of the Hun Empire (II). The early Middle Ages receive treatment in such papers as that by T. Anda on 10th century A.D. trepanned skulls (I) and the excavation report on the 11th century cemetery at Képuszta by J. Nemeskéri and others (III).

STUART PIGGOTT.

LYLES HILL. A LATE NEOLITHIC SITE IN COUNTY ANTRIM. By E. ESTYN EVANS. pp. VIII+71, 8 plates, 26 figs. Belfast : H.M. Stationery Office, 1953.

The importance of the excavations here described is shown by the fact that the term 'Lyles Hill ware' has passed into archaeological currency well before the publication of this final report. The main structures on the site are the enclosing earthwork and the cairn on the hill top. The former consists of a rampart of scraped-up surface soil piled between two lines of rough stone revetting, apparently crowned with a timber fence. The single entrance on the NW. side, about 30 feet wide, showed no traces of a gate. This remarkable structure is unique among the neolithic earthworks of Britain. It clearly has little in common with the contemporary causewayed camps of southern England nor, in view of the absence of recognizable animal bones other than those of pig, can it justifiably be regarded as a pastoral enclosure. Professor Evans concludes that its function was defensive, and suggests that the wide entrance was blocked by a thorn hedge. The large area enclosed (nearly 13 acres) was probably dictated by the topography (the rampart following the crest of a marked scarp), and need not be taken as any indication of the size of the community thus defended; though the enormous quantity of pottery recovered from limited excavations does in fact suggest either an intensive or a prolonged occupation of the site.

The cairn likewise is unique, and presents a remarkable picture both of burial ritual and of a long-continued tradition of sanctity. The primary cairn, a low platform of boulders surrounded partially, and originally perhaps wholly, by a megalithic kerb, covered the site of a large funeral pyre and a number of small 'ritual' pits. The primary cremation burial occupied a central circular cist, and other cremations occurred throughout the cairn. In addition a vast quantity of neolithic sherds was scattered in and beneath the cairn-material, among which the high proportion of rim fragments suggests deliberate selection for ritual deposit. Three secondary cremations in cists, accompanied by food vessels and an encrusted urn, were found outside the kerb.

One of the most remarkable features of the cairn is the occurrence, in the E. side of the kerb, of a dummy portal of two jambs flanking a low sill-stone decorated with an incised pattern of bar-chevrons and hatched triangles. The design is rightly compared with the ornamented stones from Skara Brae and, perhaps less convincingly, with the carvings in certain late megalithic graves in N. Germany, such as Göhlitzsch. This entrance, together with the markedly larger size of the kerbstones in an arc on the E. and NE. sides, the low height of the cairn, and the evidence for the ritual practices which preceded its erection, lead the excavator to suggest that the structure as a whole should be regarded as a derivative form of the ritual forecourt and blocking of a horned cairn.

This is an interesting and novel suggestion, particularly in view of the emphatic development of the forecourt area exhibited in so many of the horned cairns of Northern Ireland. Yet such a derivation would surely imply a late date in the sequence of horned cairns, many of which have yielded classic Lyles Hill ware in primary contexts; and it is not without significance that in the Lyles Hill cairn itself both Beaker and local Secondary Neolithic pottery appear to post-date its construction.

While both the earthwork and the cairn, being elsewhere unparalleled, must for the time being be regarded as local problems, the finds from them, and particularly the pottery, raise questions of much wider application. The immense amount of pottery recorded, chiefly from the cairn, can be divided into four classes. Small undecorated hemispherical bowls represent the basic substratum common to all Western Neolithic cultures. A small proportion of vessels of different fabric, decorated with cord and whipped-cord impressions, or exceptionally by channelling, give evidence for local contacts with the makers of Beacharra and Sandhill wares; while at a late stage coarse thick-walled 'flower-pots' make their appearance, generically comparable to class II ware at Lough Gur, and doubtless representing the emergence of a local Secondary Neolithic ceramic tradition. It is, however, the fourth class, Lyles Hill pottery in the strict sense, that is numerically dominant. The characteristic form is a well-baked leathery vessel with round base separated from the neck and rim by a marked carination, sometimes stepped or off-set. The rims are very varied, some being plain, some beaded, and others turned outwards and flattened, as in class Ia ware at Lough Gur. Decoration is confined to a rippling of the surface, commonly on the rim and upper part, but also inside the lip. The neck above the carination is usually vertical or nearly so, sometimes inclined inwards, but only rarely is it widely splayed.

The orthodox view of the proximal origin of this ware, which Professor Evans accepts virtually without discussion, is that it is derived from the graceful splay-mouthed carinated bowls of Grimston type in Yorkshire, by way of a westward movement along the north shore of the Solway Firth. It may be objected, however, that the ripple ornament so characteristic at Lyles Hill occurs in Yorkshire very rarely, and then only on the rims of squat bowls of Heselton type, which Piggott regards as a local development taking place *after* the westward migration to Ulster; and that whereas in Yorkshire the splay-mouthed bowl is characteristic, at Lyles Hill the dominant type has a neck which is vertical, or nearly so. On the other hand, this characteristic form, with and without a stepped carination, does occur (though admitted sporadically so far) at Lough Gur and Rathjordan in SW. Ireland; and some support for a southern origin for Lyles Hill ware is given, perhaps, by the occurrence at the latter site of flat greenstone pendants, of a kind found also at Lough Gur, though unknown in the British Windmill Hill province. Upon this hypothesis the orthodox view would be reversed. The occurrence in Yorkshire of ripple ornament on the pottery, and of flue cremation in long barrows, could be explained as the result of an eastward migration from Ulster, perhaps identical with that

suggested by Piggott to explain the presence at the Bridestones (Cheshire) and Hedon Howe (E. Yorkshire) of tombs related to those of the Clyde-Carlingford province.

At the present stage of our knowledge such speculations can do no more than suggest the necessity of a fresh review of the relationships between the British and Irish provinces of our Western Neolithic culture. The possibility of such a re-assessment has been brought measurably nearer by the publication of this admirable report upon one of the key sites.

R. J. C. ATKINSON.

THE PAINTED MEN. By T. C. LETHBRIDGE. pp. 208 with 19 figs. and 14 plates. 8½ by 5½. London: Andrew Melrose. 1954. 16s.

The Painted Men are the Picts. This book is concerned with the relations between this people and the Roman army. Historically the Picts are known as the inhabitants of central and north-eastern Scotland in the post-Roman period, the possessors of a peculiar social organization and the creators of a vigorous and distinctive art. Mr Lethbridge, dealing with an earlier period, identifies the Picts with the builders of the brochs and earth-houses of the north-west and the islands. Their history, as reconstructed in this book, may be briefly summarized in his own words. 'The Picti were the same people as the Pictones (of Poitou), Caesar's old allies on the coast of the Bay of Biscay. They had moved up into the Hebrides, Orkneys and Shetlands after the defeat of the Veneti in 56 B.C. They had expanded at the expense of the older Celtic tribes into Sutherland, Caithness, Ross and Cromarty. If Severus had pursued his advance as far as the scanty records of his campaigns show, he had probably made contacts with the Broch men, or Picti or *Cruithni*, while they may even have been acting in support of his advance' (p. 93). 'The campaigns of Severus gave them (the Picts) their chance. Perhaps even before this time, they had been attempting settlement in the richer lands to the south . . . but it was probably after the campaigns of Severus that they first cleared "sword-land" for themselves among the Britons in the plains of Fortrenn and Circinn (in Perthshire and Angus)' (p. 102).

This thesis is developed with a wealth of detail drawn from the traditions of the Picts and the archaeological record. The reconstruction displays an intimate knowledge of the western seas and a keen sense of observation. The author's comments on things seen—whether it be the siting of brochs in relation to a tide-race or the internal arrangement of a wheelhouse—are always acute and illuminating. His anti-Roman prejudice is more apparent than real, just as his disparagement of archaeologists does not prevent his appreciating and using the results of archaeological research. The theory set forth in this book will not be acceptable to all students of the Picts. It is a brave attempt to combine the scattered sources of information into a coherent picture, and we can all sympathize with his desire that there should be more specialists working on these problems.

C. A. RALEGH RADFORD.

STUDIEN ÜBER EINIGE GATTUNGEN VON BRONZEGEFÄSSEN (*Mainz Museum Festschrift 1952, Vol. 2*). By GERO VON MERHART. 71 pages, 26 plates, 9 maps. Price not stated.

The theory of an Italian origin for most of the bronze vessels of the Urnfield-migration and Hallstatt periods, once accepted by most archaeologists, had already been rudely shaken by the attacks of Randall MacIver, Gordon Childe, Forssander, Lindgren, Holste and others, all of whom had demonstrated the Hungarian or Central European origin of some of the bronzes. In this securely documented study von Merhart gives a new and severe blow to the theory which must soon be relegated to the myths of the

past. By compiling exhaustive lists and distribution-maps Merhart shows in fact that a whole series of bronze vessels of these periods was manufactured, not in Italy but in Styria, Carinthia, Carniola and Istria. These consisted of certain types of cauldrons, cups, jars, buckets and situlae. Some pages are devoted to repoussé decoration and its evolution: many of the vessels have this form of decoration. Merhart's study is important not only for the economic life and trade-routes of prehistoric Europe, but also for the absolute chronology of the periods in question, because those examples of these bronzes which have been found in Italy must now be regarded as slightly later than those of central Europe, not (as was formerly thought) as slightly earlier.

S. J. DE LAET.
Ghent University.

FESTSCHRIFT DES RÖMISCH-GERMANISCHEN ZENTRALMUSEUMS IN MAINZ, Band 3 (1953). 200 pages, 17 plates. Verlag des R.-G. Z., Mainz. Price, DM. 30.

The third volume of the Mainz Museum centenary Festschrift is as interesting as its two predecessors and once again presents a series of valuable articles covering many aspects of archaeology.

First mention should be made of the article by F. M. Junghanns (pp. 88 ff.) on the environment of palaeolithic man in Central Europe, which is of great methodological interest. The author emphasizes the importance of taking into account the natural surroundings—climate, flora and fauna and such like—in which the different palaeolithic cultures developed, and of a study of the evolution of that environment.

Two articles are devoted to the Neolithic. In the first H. Knöll, writing on the Early Neolithic in the North (pp. 29 ff.), reconsiders the problem of whether there was a continuity from the Ertebølle mesolithic to the Nordic neolithic. He gives good reasons for rejecting this theory and for thinking that the neolithic period was introduced into northern Europe by immigrants. U. Fischer (pp. 161 ff.) re-examines all the secondary interments in the neolithic Tumuli of Saxony and Thuringia, and thus arrives at a very detailed relative chronology of the various neolithic cultures of those regions.

Two articles are concerned with the Bronze Age. W. Jorns (pp. 57 ff.) reports the excavation of a Late Bronze Age habitation-site at Rötha-Geschwitz near Leipzig; and H. Schermer (pp. 139 ff.) writes about the burials within a barrow with a circular ditch or a palisade in south and south-west Germany—the sort which are best known from excavations carried out in Holland and Belgium. The article by W. A. von Brunn, though chiefly concerned with the Bronze Age, is also of wider scope (pp. 13 ff.; Early social stratification in the Nordic region and amongst the Germani); he shows that differences in funeral rites observed in the regions regarded as the homeland of the Germani, which occur in the same regions at the same time, need not necessarily be explained as racial differences but may just as well indicate social distinctions.

For the Iron Age we call attention to the importance of an article by Ch. Pescheck (pp. 102 ff.) on the settlement of the Vienna basin in the Early Iron Age, in which he shows the importance of the environment in explaining the distribution of settlements there during the Hallstatt period. V. Toeffer (pp. 72 ff.) publishes the report of the excavation of a potter's workshop at Ermlitz-Oberthau (Merseburg region) of the late La Tène period.

The Roman period is represented by no less than six articles. Two are epigraphic: A. Neumann (pp. 119 ff.) publishes new inscriptions from the legionary fortress of Vindobona, and W. Wagner (pp. 97 ff.) recounts the history of the *ala I Pannoniorum Tampiana victrix*. Three other articles are wholly archaeological: W. Haberey (pp. 79 ff.)

publishes a curious cult-vase found in a grave at Kärlich near Koblenz, and H. J. Hundt (pp. 109 ff.) describes a sword with an incrustated ring-pommel found at Straubing (the ancient Sorviodurum) in Bavaria. Lastly M. L. Lechner (pp. 123 ff.) describes a painted goose-egg found in a Roman grave outside Worms and extracts therefrom the significance of the egg, symbol of life, in ancient religions. The sixth article relates to the history of religions; H. Menzel (pp. 131 ff.) describes the rôle and importance of the lamp in burial rites of the Roman period.

For the Merovingian period W. von Pfeffer (pp. 147 ff.) publishes an exhaustive list of all the fillet-ornamented Merovingian glass, classifies it typologically, arranges it chronologically and shows its distribution. H. Klumbach (pp. 1 ff.) writes about two open-work Merovingian plaques shaped like stirrups from Rheinsheim and Mörsstadt on which are represented branded horses. This provides the excuse for drawing up a list of all representations of branded horses in both Greek and Roman art; these marks seem to have been primarily apotropaic in purpose.

Classical archaeology is represented by a solid article of G. Hafner's (pp. 83 ff.) which calls attention to some curious re-appearances of Cretan-Mycenaean forms and motifs in Late Hellenistic art (2nd century B.C.).

It remains only to note the valuable inventory of the activities of the Römisch-Germanisches Zentralmuseum from 1927 to 1952, compiled by G. Behrens (pp. 182 ff.) and the address of G. von Merhart (pp. 194 ff.) at the jubilee celebrations on 2 September 1952, in which the lecturer described the important part played by the Museum in German archaeology.

This is a fine collection of material giving proof of a renaissance of archaeological activity in Germany, in a new spirit.

S. J. DE LAET,
Ghent University.

PRÉLYDIENS, HITTITES ET ACHÉENS. By RENÉ DUSSAUD. Paris, Paul Geuthner, 1953, pp. 186, 52 figs. 1350 francs.

During the twenty-three years which have elapsed since Professor Dussaud published *la Lydie et ses Voisins*, many important discoveries have been made, and Asia Minor in particular has been explored with dramatic results. In the sphere of history, our knowledge of the Hittite civilization has been enlarged and consolidated. Professor Dussaud has, therefore, decided to expand and partly rewrite the earlier work, giving it a new and arresting title. The circumstance that less research has taken place in Lydia than in regions north and east of it does not lessen the desirability of such an undertaking, for, as he rightly emphasizes, the province has been important since prehistoric days because of its geographical position and its natural resources.

Yet the subject of preclassical Lydia can not fail to be controversial: so too are other subjects which the book comprises. And the extent of the controversy concerning the latter is not always sufficiently emphasized by an author whose approach is often bold and original, whose preoccupation is with the wider issues rather than with the arguments of the opposing side.

So many questions are dealt with in the 172 pages of text, that a reviewer can do little more than indicate their scope and discuss a small selection, chiefly those devoted to foreign relations.

The first chapter includes trade-routes. Smyrna in Lydia was the western terminus of a road from the east: the predecessor of the Persians' Royal Road which, as Professor Dussaud and others no doubt rightly believe, was joined by a branch leading through

Kayseri. Thus a connection is not impossible between Lydia and the Assyrian merchants established at Kültepe near Kayseri during the 19th century B.C.

But, as regards the significance of those merchants, and of the other Assyrian merchants in other towns, we must join issue. Very few historians and no archaeologists would be ready to believe that Assyrians ruled as masters in Cappadocia: they merely settled and traded there. The story of Sargon's expedition, the campaign of Naram-Sin against the seventeen kings, do not justify any theory of Assyrian hegemony. Still less plausible is the suggestion that Mesopotamian civilization spread through Asia Minor, the archaeology of which is, after all, well known.

Turning from east to west, Professor Dussaud examines certain long-standing and absorbing problems; the relation between the Anatolians (Lydians, Trojans, Hittites), and those powers (Minoan and Mycenaean) which held sway in the Aegean. Lydia itself looks westward. Nevertheless, here again he overestimates the part played by alien races on Anatolian soil. For the Mycenaean remains found at places like Miletus, Colophon and Rhodes are insufficient, as is also the literary evidence, to support his assertion that the Mycenaeans were 'masters' of Asia Minor's west coast and of Lesbos. Up to date, we can only roughly gauge the extent and character of their penetration, a fact that greatly handicaps our assessment of where to locate the Ahhiyawa.

Among other intriguing topics touched on by our author, we might mention religion, climatic conditions, metal-work and minor arts and the Peoples of the Sea without exhausting our catalogue. And even those of us who disagree find much that is both fascinating and suggestive. Chronology too is reviewed in some detail, bringing a revision of the Trojan dating which does not take into sufficient consideration Professor Blegen's verdict and the stratigraphic basis thereof. One has, indeed, the impression in several contexts that the testimony of modern excavators is not given sufficient weight: Bittel on Bogazköy, for instance, or the Anglo-Turkish expedition at Old Smyrna.

A reviewer's final word, nevertheless, should be one of gratitude. The present generation of scholars is mainly composed of specialists; they have been forced to specialize by the multiplicity and complexity of their subjects, and their outlook may, in consequence, become narrow. Professor Dussaud's book embodies a broader, more humane tradition, reminding us that we may 'fail to see the wood for the trees'. By sharing with us some of his wide learning, he will undoubtedly stimulate others to research in the many fields where he himself has travelled.

W.L.

GRAPHIC REPRESENTATION OF POST-GLACIAL CHANGES OF LEVEL IN NORTH-EAST IRELAND. By HALLAM L. MOVIOUS, JR. *American Journal of Science*, Vol. 251, October 1953, pp. 697-740, 4 figures.

This paper, which is for the specialist, shows the graphical results of detailed work done at Mesolithic sites in N.E. Ireland during the Harvard Archaeological Expeditions of 1932-36. The value of this work in establishing the chronology of the Irish Stone Age is well known from Professor Movious' publication of 1942*. Although the essential facts concerning relative movements of land and sea since the onset of Postglacial conditions have been known for about 50 years, the intensive investigations described in the present paper show details of the rate and magnitude of these movements. The evidence was obtained mainly from three sites in Co. Antrim: Cushenden; Curran Point at Larne; and Island Magee south east of Larne.

* *The Irish Stone Age: its chronology, development and relationships*. Cambridge University Press.

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The graphs show the *relative* position of land with respect to sea, which is assumed to be constant. Until further detailed work is done on other sites in N. Ireland, northern Britain, and especially Scotland, it is not possible to disentangle the complex eustatic and isostatic movements which determine the part played by land movements on one hand and changes of sea-level on the other. The horizontal co-ordinates of the graphs show geological time sub-divided into climatic phases, with absolute dates based on correlations with Fennoscandia. The age of deposits, and the dating of the maximum transgression, is founded on the palaeobotanical zone sequence established by Jessen. A standard horizontal time scale throughout the graphs enables a comparison to be made of movements and deposition at all the sites studied at any given point in time. The vertical co-ordinates represent vertical measurements of deposits relative to high- and low-water levels. Their relationship to datum is established by a study of the conditions prevailing at the time of accumulation, based on the evidence of marine fauna, mechanical analysis of sediments, and palaeobotanical data.

Of particular value is Professor Movius' emphasis on the traps into which the unwary have often fallen in the interpretation of what are popularly (but erroneously) called 'raised beaches'. Allowance has not always been made for local factors influencing the height of the sea, such as variation of tide range, and particularly the action of storm waves which may account for the terracing of sediments to as much as 6 to 7 ft. above ordinary high tide level. Another important question discussed is the effect of compaction on soft or porous deposits by pressure, owing to their high initial water content. Thus in interpreting the extent of uplift as revealed in the graphs, allowance should be made for the nature of the deposits; uplift will appear to be less in areas of peat, silt or clay than in adjacent localities of sands or gravels.

SONIA COLE.

STONEWORKER'S PROGRESS: A Study of Stone Implements in the Pitt Rivers Museum. By SIR FRANCIS H. S. KNOWLES, BART. *Oxford University Press*, 1953. *Pitt Rivers Museum, University of Oxford, Occasional Papers on Technology*, 6. 120 pp., 24 figures. 15s.

Very few have mastered the art of making flint implements other than professionals such as the Brandon knappers; amongst the few are (or were) 'Flint Jack', Monsieur L. Coutier, Dr L. S. B. Leakey, and Sir Francis Knowles. Probably all would agree that although the art is difficult enough even with constant practice, it is still harder to describe in words than to demonstrate. The present paper is based on the manuscript used by Sir Francis Knowles to teach stone age technology to pupils in the Pitt Rivers Museum. Probably those who were privileged to watch him will find it a useful reminder of his methods, and others who have the opportunity to study the specimens described in the museum's collection will also find it valuable. But the novice hoping to learn the principles of stone age technology, or students other than in Oxford, may be disappointed. Nor will they feel like paying the price (15s.) for a paper-backed booklet of restricted application. Technological descriptions in at least two books of wider appeal* are easier to follow and better illustrated. Sketches of the demonstrator in action in Sir Francis Knowles' paper (Figs. 6, 8, 10) are good, and so are the diagrams (Figs. 7, 9) but the pictures of actual implements are less satisfactory. Conventional shading for showing

* L. S. B. Leakey, *Adam's Ancestors*. 4th edn., London, Methuen, 1954, pp. 29-49.

K. P. Oakley, *Man the Toolmaker*, 2nd edn., London, British Museum (Natural History), 1950, pp. 23-33.

the direction of flaking is not always adhered to (e.g. Figs. 4, 5) and this should be particularly important in a book on technology.

In spite of the fact that he is not always successful in 'putting it over' in print, the importance of Sir Francis Knowles' practical work is very great. From 1919 until his death in 1953, he was concerned mainly with the technology of stone implements. His studies and experiments were supported by observations on the tool-making methods of modern aboriginal peoples, and it is this aspect of his work which is of the greatest value.

SONIA COLE.

FESTSCHRIFT FÜR PETER GOESSLER: Tübinger Beiträge zur Vor- und Frühgeschichte, 194 pp., 25 plates. W. Kohlhammer Verlag, Stuttgart, 1954.

We doubtless all agree that Festschriften constitute a deplorable nuisance as they do not automatically get into libraries so that potentially useful contributions to knowledge get lost. I fear librarians will just have to buy the *Goessler Festschrift* since it contains articles too useful to be ignored. Of these I shall mention only those directly or indirectly relevant to British prehistory and firstly W. Kimmig 'On the Urnfield Culture in south-western Europe', if only because it presents concisely with full illustrations the exciting results of the Mddles. Tafanel's excavations in the oppidum and cemeteries of Cayla near Mailhac (Aude), otherwise reported in still more inaccessible local journals but crucial for the chronology and affinities of the urnfield cultures in South France. Here of course they are discussed in relation both to the patently ancestral North Alpine material and to the kindred cultures of the Pyrenean region while an appendix by Rix deals with the relation of the urnfields to Celtic place-names. Two fascinating maps of the distribution of names ending respectively in *-briga* and in *-dunum* suggest that the Celtic occupation of Spain was earlier than the colonization of England and that the urnfield invaders were responsible for the older group of town (i.e., oppidum)-names in *-briga*.

Schiek's republication of the relics from the Late Hallstatt (HD.) chieftain's grave of Vilsingen, anticipating a subsequent article on Kappel-am-Rhine by Kimmig and Rest in the *Jahrbuch des Römisch-Germanischen Zentralmuseums*, conclusively establishes the chronology of Hallstatt II with the aid of Greek imports from the chieftains' graves and from the great oppidum of the Heuneburg—HD1 c. 570–520, HD2 520–470 B.C. It is accompanied by a list of 124 hearse-graves (*Wagengräber*) from Bohemia, western Germany, Switzerland and France, chronologically classified and plotted on a map. The latter discloses curiously exclusive distributions with all Early Hallstatt, HC, burials concentrated in Bohemia and Bavaria east of the Lech, most HD graves further west and northward to the Main and La Tène examples confined to the Middle Rhine and Moselle. This should illustrate a westward spread of the practice of burying hearses in the tombs of richer persons together with other eastern ideas. But since the article was written a hearse grave of the Late Bronze Age, HA, has been recognized at Hart a.d.Alz in Upper Bavaria.

Using similar chronological evidence G. Smoller dates about 800 B.C.—i.e., to the very end of the Late Bronze Age, HB2—the catastrophic deterioration of climate, pointing out that there must be a substantial interval between its onset and its reflexion in the composition of forests and in pollen-diagrams based thereon. His date would be a perfectly acceptable one for the beginning of the Irish Late Bronze Age, but would not of course eliminate the typological discrepancy between Irish and Danish relics from above the recurrence-surface that should reflect this deterioration at once.

Finally Eva Bossert accepts as a halberd the weapon from a Middle Cycladic grave at Arkesine on Amorgos, interprets it as local imitation of an import from the West Mediterranean and brings it into connection with the Middle Cycladic jugs from Minorca and Marseilles. This gives for Aegean penetration into the western seas a date (*c.* 1700 B.C.), earlier than that admitted by recent English writers. But the authoress reminds us of the warnings of Bosanquet and Dümmler, that the Marseilles jug may quite possibly have been brought to France in the early 19th century at the time of the Greek War of Liberation.

V. GORDON CHILDE.

A HISTORY OF THE BEJA TRIBES OF THE SUDAN. By A. PAUL. *Cambridge University Press, London, 1954. Post 8vo, viii + 164 pages, 6 half-tone plates, 5 maps. Price, 15 shillings.*

'Beja' is the collective name given to the block of Hamitic and largely nomadic tribes who range across the north-eastern quadrant of the Sudan. They are the Buka of the Egyptian hieroglyphs, the Bugas of the Axumite inscriptions, the Blemmyes of Roman times, the Bugiens of the 17th century cartographers, and the Fuzzy-Wuzzies celebrated in Kipling's verse. Throughout the thousands of years of their history they appear to have remained almost completely unaffected by the successive civilizations which have flourished and withered along the banks of the Nile. They are, says Mr Paul, and as the present reviewer can testify, 'rude and wild, of unpleasant and unhygienic habits, their hair clotted with mutton fat, their bodies reeking of oil, sweat and wood-smoke'. They are also incredibly indolent; 'they will starve rather than set their hands to tasks which with a little effort would ensure a certain degree of prosperity and freedom from want'. Why, then, should anyone want to write a history of such a people? The usual answer would be that, to carry out his duties intelligently, it is necessary for a District Commissioner to find out something of the history of the people he serves, and it is often useful that he should put the result of his research on record. But the Beja have had a curious fascination for their British administrators. They have largely retained their primitive virtues of fortitude, patience, bravery and generosity; they are not slow-witted and they have a sense of humour. They have, moreover, of late years shown themselves capable of loyalty and even affection towards those of their rulers who have won their confidence. It must not be forgotten that, when an Italian invasion of the Sudan was threatened in 1940, the Beja (the Hadendoa tribe in particular) rallied to the support of the government and rendered most valuable service.

Mr Paul is the latest of a number of administrators who during the past thirty years have felt impelled to write about one or other of the Beja tribes. He has given us in handy form in one volume an account of all the tribes and has fitted it into the known and relevant history of the eastern Sudan. He is never dull nor is he sentimental. He realizes that a few decades of sympathetic administration cannot make much impression on a people so resistant to change as the Beja. He does not, indeed, consider that the Beja ought to be expected to change to any great extent. They cannot be induced to leave their present environment of desert scrub and rocky hill, and since they will have to continue to live in it for hundreds of years to come, the government which will best serve them is, in the author's view, one which will concentrate only on the essentials of good administration. While constantly seeking to ameliorate the barren existence of the Beja, it will otherwise leave them alone to do things in their own way. Mr Paul, perhaps wisely, does not speculate on what may happen to the Beja now that they are entitled to vote, albeit indirectly, in elections to a Sudanese House of Representatives.

F. ADDISON.

4,000 YEARS UNDER THE SEA. By PHILIPPE DIOLÉ, translated by GERARD HOPKINS.
Published by Sidgwick and Jackson, 2nd-impression, 1954, 16 plates, 320 pp. text.
Price, 18s.

There seems always to be a public for topographical-historical books of a discursive, literary, kind containing much miscellaneous information. These 'excursions in undersea archaeology' combine such an approach with the vogue of the free or helmetless diver. The connecting thread is the history of undersea discovery all round the Mediterranean, almost exclusively of Graeco-Roman remains, with a considerable bibliography. Much of the book deals with the land, including wine-growing in antiquity, but it is the sea that stirs the author's imagination and interest, to an extent that its archaeology hardly warrants as yet, as he would admit. Most commendably he repeatedly stresses the damage done by operations such as 'tearing loose from a watery grave hundreds of amphorae' and he 'would gladly exchange such massive odds and ends for one single piece of reliable information about the wreck, or one good photograph of any of the objects, *in situ*'. Among the most interesting sections of the book are those that deal with the author's own reconnaissance of the Roman port of Caesarea in Algeria and with the cargo of vast blocks of Carrara marble sunk off the French coast. The description of a dive off the Breton coast discourages similar work in northern waters. One of the factual appendices deals with changes in sea-level, and another lists finds of anchors.

ROBERT B. K. STEVENSON.

MAN'S ANCESTRY: a primer of Human Phylogeny. By W. C. OSMAN HILL.
pp. ix+194+19 plates. London: William Heinemann (Medical Books), Ltd., 1954.
21s. net.

This book is intended as an introduction to the study of human evolution for University students, ranging from zoologists to social anthropologists. The perspective and plan of the book are well conceived. Starting with a far distant protozoan ancestry, Man's evolutionary past is surveyed through the whole series of invertebrate and vertebrate 'horizons' until the emergence of the Primates brings the recountal up to Man himself.

The pre-primate chapters are very congested and really require a working knowledge of zoology in order to follow the technicalities of the argument. The chapters on the emergence of the Primates and on fossil man are on the whole much easier to follow. (The reviewer naturally found the account given of Piltdown Man—quite apart from the author's views on the recent disclosures—an unsatisfactory one; for example, the author accepts the fluorine findings of 1950 as good evidence for associating jaw and cranium, but several pages later ignores the fact that these same tests, as well as other geological evidence given by Oakley, invalidate *Eoanthropus* as in any sense an ancestral form).

The general approach of the book to the whole subject is unfortunately not sufficiently critical and is marred by too many odd and unexpected misstatements or ambiguous phrasings. The reader is given to understand, for example, that fossils only occur in sedimentary deposits laid down in water, that the lung fish is peculiar to Australia, that monkeys are incapable of articulate speech on account of the relative immobility of the tongue, that the faculty of speech in fossil man can be determined from the examination of an endocranial cast, and right or left handedness from the asymmetry of the occipital bone, that the sectorial premolar of apes is a relatively recent specialization, that in modern man the first upper premolar tooth is never three-rooted and the enamel of the molar teeth never wrinkled, and that australopithecine fossils have been discovered in Rhodesia. Incidentally the Acheulean hand-axe shown in Figure 92 (and stated to have

been dug up in a garden) is almost certainly of Neolithic origin. The author's use of the term 'orthogenesis' may mislead students as it is here used as synonymous with 'ortholinear'. One important matter which is treated in a regrettably summary and dogmatic fashion is the assertion that the races of mankind constitute separate species. While the author can find space for a technical discussion of alternative theories to account for the derivation of the *Metazoa* he cannot give this question of human speciation even equal treatment.

As an anatomist, the author is well-known for his highly competent work in the field of purely descriptive comparative anatomy; it is a pity, therefore, that this book has the appearance of a 'pot-boiler' hastily and rather roughly put together. J. S. WEINER.

THE EXCAVATION OF MEDINET HABU, Volume V. Post Ramesside Remains.

By UVO HÖLSCHER. Being volume LXVI of the University of Chicago Oriental Institute Publications. *University of Chicago Press, Chicago. Price, \$30.00.*

This volume completes the account of the excavations carried out in the temple complex of Medinet Habu by Professor Uvo Hölscher for the Oriental Institute of Chicago University. These excavations were undertaken as a supplement to the work of the Institute's Epigraphical Survey on the scenes and inscriptions on the walls of the temples there. As the late Professor J. H. Breasted pointed out in the Foreword to Vol. I, no great temple or other monumental structure in Egypt had been studied carefully from a purely architectural point of view. The main aim of Professor Hölscher and his assistants was to make such a study of the Medinet Habu complex, paying attention not only to the main structure, the mortuary temple of Ramesses III, but also to any earlier and all later buildings. In this last volume the remains of the later periods are examined and described.

The task of the excavators was made more difficult because of the extensive destruction wrought on later buildings by modern 'archaeological' clearance and the removal of decayed mud-brick by the peasants for use as fertiliser. Nevertheless the results achieved are remarkable and they are here published in an exemplary way, the text—which is always lucid in spite of many complicated technical descriptions—being very well illustrated with line-drawings and photographs.

Not only did the excavators recover much architectural information, but they also revealed a fascinating story of a site almost continuously occupied as an administrative centre and inhabited area from the xxth Dynasty to Coptic times. In the Late-Ramesside period Medinet Habu was the centre of administration for the Theban Necropolis and the source, no doubt, of the great Tomb Robberies papyri and other kindred documents. By Coptic times, however, the great temple, apart from the second court which contained a church, was filled with dwellings, while the great pylon no longer stood high above its surroundings but was concealed by a sea of buildings.

In the course of the excavations many interesting small buildings were discovered of which only a few can be mentioned here. Of the xxist Dynasty is the house of Butehamūn, the royal scribe known for his participation in the reburial of the plundered mummy of Ramesses III. Near the small temple was found the tomb of Horsiese, High-priest of Amūn and co-regent with Osorkon II of the xxind Dynasty. The tomb-chapels of the Divine Consorts of Amūn (xxv–xxviii Dynasties) were also re-excavated and apart from finding additional small objects, the expedition discovered evidence which leads Hölscher to suggest that there was originally another tomb-chapel belonging to 'Ankhesneferibre'. He also plausibly suggests that the great sarcophagus of 'Ankhesneferibre' in the British Museum was placed originally in this tomb-chapel but was

removed when usurped by Pi-Month. It subsequently was found in a shaft behind Deir-el-Medineh near the shaft in which was found the sarcophagus of Nitocris which also originally came from Medinet Habu.

Hölscher further points out with regard to these tomb-chapels that they contain the first absolutely true stone vaults, i.e. vaults constructed of wedge-shaped stones with radial joints, therein differing from earlier corbelled vaults with horizontal joints.

In the chapters on the settlements during the Ptolemaic and Roman periods many interesting details are given of the structure of private houses including the plumbing arrangements in bathrooms and lavatories and of the conduits used for the water supply. The Coptic town of Jême which suffered most from modern *deblaiement*, also yielded much material for the study of domestic architecture. Jême was characterized by tall, closely crowded houses and very narrow streets.

Some small points need correction. In the description of the tomb of Horsiese the steps must be 26.5 cm. deep, not 2.65 m. (p. 9). The headrest with an incised figure of Bes dated to the xxist-xxivth Dynasties (p. 11) is very similar to one in the British Museum (63783) dated by the name of its owner, the scribe Qenhikhopshef, to the xixth Dynasty. The Coptic name of Jême is written incorrectly. The second of two inscribed cones (p. 62) belongs to H'-m-wr, not H'-m-wr. T. G. H. JAMES.

THE OPEN FIELDS. By C. S. and C. S. ORWIN. *Geoffrey Cumberlege, Oxford University Press*. 2nd ed., 1954. pp. xiv + 190, 29 pls., 3 figs., 7 maps at end. 30s.

The first edition of this book appeared in 1938 but was not then reviewed in ANTIQUITY, although readers will not have remained unaware of its existence. References to it, critical or approving, occur in almost every article on medieval farming since published. The Orwins' general account of the origin of the open fields and of the farming operations which gave rise to the characteristic open field pattern of scattered strips has been generally accepted. Battle has raged, however, and still rages, over their views of lynchets and balks, that is, of the terraces which often mark-hill-slopes and of the unploughed grass ground separating strip from strip. Readers will recall two challenging articles, that of E. C. Curwen (ANTIQUITY, XIII, 1939) on lynchets and of C. D. Drew on balks (ANTIQUITY, XXII, 1948).

If forced to umpire the balk contest, this umpire would feel that the Orwins have succumbed to the temptation of wanting to keep agricultural history simple. If, instead of banishing the balks entirely, they had been content to exile them to the lighter soils of the south and east he would have been wholly with them. Some note should have been taken also of Dr Kerridge's assertion (in an article cited for other purposes by the Orwins (p. 449)) that grass balks obtained throughout chalk Wiltshire and that there was documentary evidence to support this assertion. The Portland evidence and the Wiltshire evidence does not stand alone, but this reviewer feels that the onus is still on those who would prove that balks existed in the heavier Midland and Northern soils; he has in fact published some suspicious but not wholly unambiguous words from a Leathley terrier of 1684 and has seen unmistakable balks between strips on an 18th century open-field map of Woolley (Wentworth MSS). Dr Kerridge has recently published an imposing list of references to balks between the holdings of man and man. (*Ag. Hist. Rev.*, III, 38 (1955)).

In the lynchet controversy this particular umpire must more from the side of the angels. The paragraphs discussing the origin of lynchets have now been moved to an Appendix (pp. 175-9) but the view that the lynchets have nothing to do with the open

fields is still held. Curwen's criticism of the original argument is not put before the reader, although his article is cited in the bibliography. The sole additional evidence is an extract from Mr Collins' report of excavations at Blewburton, Berks., where lynchets of from 8 to 12 yards' width appear below an Iron Age fort. Mr Collins was able to date the lynchets as post-Iron Age, but concluded that they could not have been made otherwise than by pick and shovel; their purpose he could not identify.

Their purpose, he says (p. 179) must be an open question; the excavation (p. 178) sheds so little light on the matter. With their leading witness so diffident it is somewhat surprising to read a little earlier that the excavations are regarded by the Orwins as 'confirming' their conclusion that 'terrace lynchets have no connection whatever with the system of farming attributed to the Saxons'. But there is no consistency: on p. 176 the authors themselves are more diffident: '*some, at all events*, of these lynchets are much older than the open fields' (our italics); and they 'have no explanation to offer in substitution for that which suggests that they are strips of the Open Fields which have assumed this form from the exigencies of ploughing on a hillside'; 'no one explanation of how and why they were made can fit them all'. In fact, it is the last sentence which commands the greatest sympathy. As with the balks, it seems not worth the convenience of simplicity to have an all-England generalization. This reviewer is willing to embrace the Yorkshire Dales and Westmorland lynchets as creatures of the open fields without feeling compelled to accept 12 yard-wide terraces in the south; and as an economic historian he must warn the reader that the land hunger in open field days, which both the Orwins and Mr Collins find it difficult to credit (pp. 178-9), drove men to far more desperate feats of reclamation than the creation of lynchets on chalk slopes. The open field days extended beyond the Dark Ages, and the land hunger of the early 13th century has left its mark all over the slopes of the southern Cheviots on land much more marginal in terms of soil and climate than the southern chalklands. It is something of an anticlimax after reading of the 'marginal' conditions at Blewburton to turn to the Ordnance Map and find that the top of the hill is only just over 300 feet high!

The second of the three principal objections to an open field origin for lynchets is the obverse of the Orwins' views on balks. It runs: there could only have been lynchets if there were grass balks; there were no grass balks; therefore the lynchets cannot be part of an open field system (p. 178). But the very strips of Laxton take on involuntarily the character of small lynchets when the plough had to run along the contour on a steep slope. These can still be seen on the ground; this reviewer has picked blackberries from the bushes which have found shelter on the grass inner wall of the terrace; the steepening of slope is in fact shown by hachures on the Ordnance Map (1904-6, folding map) in holdings 10-11 in Mill Field and 5-7 in South Field. The Orwins knew this (p. 176), but it is difficult to see how these lynchets have arrived in the middle of the open fields of Laxton except as products of open field farming. A similar relation between strip, slope and lynchet is seen on Portland. (Drew, art. cit.).

These particular critical glosses on what were, after all, only incidental and minor parts of the original thesis, may unfairly suggest that the book was received in 1938 with coolness by academic opinion generally. This reviewer had only a worm's eye view in that year, but he recalls his first visit as an undergraduate to his supervisor when a copy of *The Open Fields*, dust-cover and all, was thrust into his hands with the order to deliver an essay within seven days. Pleasure soon replaced duty, and although undergraduate approval does not find its way into the company of the approval of the upper orders on publishers' blurbs, there was much satisfaction among the lower orders. To discover that E. Clerihew Bentley was for once wrong, and that some kinds of history were both

about chaps and maps was an eye-opener to one who had not been brought up on ANTIQUITY; and an encouragement to keep the eyes open. The field-work tradition in economic history—although not wholly a child of the Orwins—has been much encouraged by their description of open field farming in practical terms.

The present volume, a second edition, is not the same as that handed to undergraduates in 1938. It lacks the text of the strip-by-strip open field terrier of Laxton but it retains the facsimiles of the 1635 map and the six-inch Ordnance sheet which relates the old to the new by indicating the degree of consolidation which took place in 1904-6. The consolidation of adjacent strips into the hands of the same proprietor had already gone some distance at Laxton in 1635, as the terrier and map show; quite a number of acres fenced in 1635 had once been open; and quite a number of acres open in 1635 are now fenced, but anyone visiting these closes with Mark Pierce's map in his hand can see ridge and furrow exactly where the strips are shown in 1635. The creation of the closes is not the only transformation which partially conceals medieval Laxton from those who go to see it in coaches or in the admirable little G.B. Instructional Film, *Medieval Village*. The cultivation units of the modern landscape at Laxton are much larger parcels than either the medieval strips or the bundles of strips of 1635. A page in the second edition describes the transfer of the still-open fields to the Ministry of Agriculture in 1952, so that they will be preserved. But some words in the Agricultural Land Commission's *Fifth Report* (quaintly dated 1852 in a footnote, p. 169) need emphasis: Laxton has an 'open field system adapting itself in some measure to serve changing needs . . .'. Laxton is fortunately not a folk museum but an active farming community, and the price of adaptation to serve changing needs has been the virtual obliteration of the smaller land-units of the medieval fields. These can be seen undistorted only in parts of the 1635 map; but in favourable air-photographic conditions the old strips are etched out within the modern blocks, and walking on the ground in the grass fields where the west corner of South Field used to be, it was possible in 1952 to see the exact place where one furlong had given way to the next. The point where the faint rise and fall of the ridges changed direction was perfectly plain. In the plan of 1635, the end strip of one furlong (no. 1119 in the terrier) met the furlong made up of holdings 1100-18. Holdings 1100-13 could also be equated with ridges.

The Orwins' terminology in respect of strips is confusing. 'Strip' is usually employed by them as a synonym for 'holding'. It does not appear in the glossary pp. 183-5. Surely the more common use of the word is as a synonym for 'selion' or 'land', that is, the smallest and single unit of land-tenure within the open fields. If the good old words 'selion' and 'land' are considered ambiguous, is it not better to confine 'strip' to the single unit, and then to call any multiple holding of adjacent units a 'parcel' or 'holding'. To call such a holding a 'strip'—however many selions it contains—is only to confuse?

The plates in this second edition are exactly those of the first, with altered pagination and the additional ascription of the ridges of 'old ploughland reverting to scrub' (plate 4) to 'Oxfordshire'. Where? It would also have been nice to have had the space left by the removal of the open fields distribution map filled by the fine open field map of Crimscote, Warws. (County Record Office), facing the interlinked furlongs of plate 11b so that the close identity of ridge and furrow with a very complex strip pattern could have been observed by sceptics. A good photograph of the open fields of Laxton might also profitably have replaced the poor distant view of plate 28 which does not represent the present-day ability of the air photograph to assist the field-worker and the documentarian.

REVIEWS

The great achievement of this book was to bring to bear on the open fields a farmer's view of their origin and working. Anyone who contributes light to dark places is tempted to comment on the poor showing of other techniques and technicians. 'Unfortunately' say the Orwins (p. 49) 'historians are not all of them ploughmen'. Dr Kerridge is our profession's scapegoat on this occasion, but one might retort that even ploughing historians have their weaknesses to be assessed alongside their strength. Some tares of misprints are sown among the grain: three of the authors in the Bibliography have names or initials wrongly given; in footnotes the co-author of *Wessex from the Air* is transformed (p. 176) from Keiller to Keith; and Lt.-Col. Drew (p. 50 and index) is christened 'E' instead of C.D. Nor do all the articles cited in footnotes appear in the Bibliography, while the unamended reprinting of the Preface to the First Edition gives references to a non-existent map and to a non-existent page.

The more substantial criticism with which gratitude for reprinting must be tempered arises from the omissions rather than the commissions. No-one expects historians to be wise *before* the event, but sixteen years after the first edition there is some responsibility to take cognisance of what has been written in the interval, much of it inspired by the ideas the Orwins had set in motion. Apart from the small additions already noted and the omission of the terrier, the second edition differs principally in the chapter on the distribution of the open fields, the much-criticised map being dropped. What it does not do is to make the reader aware of other important work on the matters covered by the book since 1938. Just as none of us could write about 'the open fields' since 1938 without ample reference to Laxton and the Orwins, so a book with that title bearing the imprint of the O.U.P. and the date 1954 ought at least to suggest to the reader where he might find subsequent articles on the plough (Messrs Payne and Nightingale), the day-by-day management of open fields (Messrs Bishop, Homans, Hilton and Hoskins) and, thirdly, on the modifications enforced whenever the medieval colonist found himself striving to create arable in certain marginal conditions (Messrs Hoskins, Darby and Saltmarsh). England was not all like Laxton. There were green, less pleasant fields.

If agricultural history is to have meaning it must allow for the local variety characteristic of English agriculture and also for the ebb and flow which time has brought to the economic and tenorial conditions under which men farmed the open fields. The open fields of England differed from the 'norm' both in space and time, and a book which takes its title from them is less than fair if it affords these matters only passing mention (see the work of Finberg, Hilton, Miller, Postan *et al.*). One would rather have seen a 'reprint with corrections' performing the socially useful function of bringing down the price of the much sought-after copies of the first edition, while the authors prepared a real second edition. As it is, one could not really recommend an owner of the first edition to invest thirty shillings in the second. The real recommendation is that individuals and libraries who failed to spot the winner in 1938 should fill the gap on their shelves and blame the inflation for the slimmer volume their money brings them. A new reader will be as stimulated as we were in 1938, but he will not be able to feel, as we could then, that he has read the last word. There have been several more in sixteen years.

M. W. BERESFORD.

THE ARCHAEOLOGY OF SUSSEX. By E. CECIL CURWEN. $5\frac{1}{2} \times 8$. pp. xi+330. With 32 plates and 94 text illustrations. Methuen, 2nd Ed., 1954. 25s.

This is a much improved edition of a book which is recognized as one of the best in the County Archaeology series. At a time when the study of prehistory has become so specialized that archaeologists are contemplating the production of their own dictionary,

it is refreshing to find a book which is informative enough to be valuable to the expert and sufficiently simple and clear to fascinate the general reader.

Chapters I-VII differ little from those of the first edition. We are shown how men developed from hunters with primitive and unspecialized tools to farmers and herdsmen living on the downs which they could now clear with their polished axes and cultivate with hoes. With 'The coming of bronze', we find them playing their part in trade which extended from Ireland to the East Mediterranean, Sussex lying near some of the principal land and river routes from Ireland to the Continent.

The Late Bronze Age and the Iron Age are admirably explained and interpreted as a cultural whole. We see how the Celtic Field System, settled farmsteads and cattle enclosures altered little from about 800 B.C. to the Roman conquest. Roman rule, indeed, seems to have changed this way of life only little. The chapter on the development of pottery in this period in the first edition has been omitted. Instead, two completely re-written chapters describe with amazing clarity the complex story of the Late Bronze and Iron Ages in Sussex.

The Roman chapter remains sketchy, but necessarily so; Dr Curwen has wisely attempted to do no more than indicate what Romanization in the broadest sense meant in an area well-populated by farmers of diverse Continental origins.

Lists of museums containing Sussex material, and details of archaeological societies in the county are added: National Grid references to all sites mentioned in the text are an important innovation.

The chapters on Neolithic camps, flint mines, the Late Bronze Age and the Iron Age are the best, Dr Curwen's specialized knowledge being splendidly utilized. The description of Itford Hill is the first to be published and is particularly valuable. The chapter on Palaeolithic man is still out of date and weak, even though the discoveries at Piltdown are now both described and exposed.

NICHOLAS THOMAS.

MANUEL D'ARCHÉOLOGIE BIBLIQUE. Vol. II *Faits Sociaux Religieux*. By A.-G. BARROIS. Paris, A. et J. Picard et Cie., 1953. 2,250 francs.

This is an excellent book, but its title is misleading, at any rate as concerns the second volume, here reviewed. *A Companion to Bible Studies* would be a much more suitable designation, and as such it can be welcomed.

The author gives us an excellent discussion of the ethnology and sociology which can be deduced from the Biblical stories in the light of our present knowledge of contemporary societies. The approach is almost entirely literary, an analysis of the way of life of the patriarchs, of the Hebrews of the time of the settlement in Canaan and of the subsequent periods, in the light of the Biblical accounts and other relevant documentary sources, notably those of Mari and Ras Shamra. Material remains, the prime source of a strictly archaeological approach, are referred to, but on a lesser plane, and they are usually somewhat summarily discussed. The first volume of the Manuel, which appeared in 1939, is in fact much more archaeological in subject-matter. In the present volume, the two chapters which do deal at more length with material finds (burial customs and sanctuaries) are actually the least satisfactory. The author does not, for instance, give a clear or critical picture of the tomb-types of the different periods, while, as regards the dating of the Beth-Shan temples, he is content to tabulate the various views without expressing an opinion, a point which also marred his first volume.

When these reservations have been made, the volume can be recommended. There are many obscurities in the Old Testament for those who are not familiar with the social background of the Hebrews and of the peoples among whom they lived. Barrois discusses

in full the family and tribal system, legal and monarchical institutions, economy, weights and measures, trade and many other subjects. A particularly useful chapter is that on Israelite cults and sanctuaries. In this, his approach is well-illustrated by an introductory statement: 'We will limit ourselves here to the classification and interpretation as far as possible in the perspective of history, what the literary sources, in practice limited to the Biblical accounts, teach us concerning the Israelite cult', for he admits that structural evidence is lacking.

The volume is well produced, with adequate indices and abundant references. It is illustrated by many good and even attractive line blocks; the half-tones, reproduced in the text, are of less good quality.

K.M.K.

PALAEOLITHIC RELIGION AND THE PRINCIPLE OF SOCIAL EVOLUTION

By F. D. KLINGENDER, *British Journal of Sociology*, vol. 5, no. 2, June 1954, pp. 138-53.

In a highly speculative, though significant article, F. D. Klingender, basing his thesis primarily on Freud's hypotheses about modern 'primitive' peoples in *Totem and Taboo* (1913), gives new depth to our study of palaeolithic religion and art. For his paper, he adopts the potentially profitable, yet perilous, method of using anthropological material to explain many otherwise unanswerable questions in prehistory. Because the modern Bushmen of South Africa (though almost entirely exterminated in the 1860's), were most closely related in technology, conditions of life and art to the upper palaeolithic hunters, they are extremely useful in any discussion of parallels. Klingender, therefore, begins his study with an analysis of some Bushman myths and rituals.

Examining a ritual dance, and the creation myth from which it was derived, he finds that, in addition to its manifest food-magic purpose, i.e., the desire to guarantee game fertility and a successful hunt, there was perhaps, another less obvious, almost hidden purpose. This aim, implied in the inconsistency of certain details with the food-magic purpose, was more clearly revealed in several other myths. It appears to be the enforcement of a taboo on incest. The obvious and hidden objectives of the myths and rites were, however, in agreement, since the food-magic served as a respectable façade behind which the unlawful impulses of love and aggression could be brought out and purged, as in the sex and killing rites so characteristic of these hunting rituals. Moreover, there was an even closer relation between these two purposes (also true for the Australian data). Apparently, according to Klingender, compliance with this moral law, or incest taboo, was considered imperative for the proper functioning of the natural order as well: the game would elude the hunters and be infertile if this moral law were disregarded. Furthermore, Klingender suggests that the double character of the moral law (because of its being understood concurrently as a law of nature) '... is therefore most fittingly expressed by the symbolic notion of kinship between the human group and the game. That notion, and the ritual centred in the game which expresses it, I take to be the essence of totemism ...'

Essential to the Bushman totemic ritual, and appearing in the art and mythology, were two components, the ritual marriage and the ritual hunt. In an attempt to show that they appear in the palaeolithic age and are original features of totemism, rather than later elaborations, Klingender cites examples from the palaeolithic art of south-western Europe. Ritual hunts, for instance, were represented in the caves of Montespan, Niaux, Lascaux, Pech-Merle, Altamira, Les Trois Frères, etc. Sexual imagery was extremely common, e.g., Venus figures, conventionalized symbols of the vagina, pregnant animals, etc., and sex or marriage rituals were illustrated at Les Combarelles, Tuc d'Audubert,

etc. Most important, however, was the placement of the sanctuaries in caves. Perhaps rashly (but this is not characteristic) Klingender states: '... the cave was ... the magic womb in which the fertility of the totem was maintained'. Moreover, the representations of these hunting and sex rites may be seen combined, e.g., Pech-Merle cave, carved Magdalenian bone from La Madelaine, rock engraving near the Oasis of Tiout in the Atlas Mountains, etc. In some cases these two essential components of the hunting society ritual, the ritual marriage and the ritual hunt, survived among agriculturists and pastoralists, thereby bolstering Klingender's contention that these hunting rituals have another meaning besides the obvious food-magic one, e.g., monuments of the Third Spanish Style, some North African rock-sites and works of the present-day Dogon tribe in the Sudan.

Klingender, in conclusion, attempts to interpret this evidence. Religious imagery, its beginning and development, he advises, may profitably be studied in the context of that extension of biological evolution, social evolution. One of the first and basic accomplishments of social evolution was the development of larger, more diverse and stable social groups than were possible with the biological family or herd. This, of course, required a taboo on the common animal phenomenon of incest. Moreover, it seems logical to assume that the new social grouping with its necessary incest taboo arose as a consequence of the development of more complex and improved food-producing techniques and tools, since their efficient use absolutely required cooperation. This modification of animal behaviour, required by the taboo in order to procure food more efficiently, must have taken a long time and have been quite difficult. According to Klingender, based on the character of their ritual as seen in the art, it was only fully achieved at the beginning of the upper palaeolithic cultures.

Though more research is necessary before Klingender's entire thesis may be considered proved, he supplies a framework which will have much significance when fully enclosed.

MARSHALL MOUNT.

SVEND AAGE PALLIS. *Early Exploration in Mesopotamia (With a list of the Assyro-Babylonian Cuneiform Texts published before 1851)*. *Det Kongelige Danske Videnskabernes Selskab: Historisk-filologiske Meddelelser*, Vol. 33, no. 6; Copenhagen, Munksgaard, 1954; 58 pp.

It is conventional to regard Mesopotamian archaeology as a product of the 19th and 20th centuries; and Assyriology as an achievement of the last hundred years. However, as is the case with most 'modern' accomplishments, Mesopotamian archaeology has a long 'prehistory'.

The author traces the rediscovery of Nineveh back to the travels of Benjamin of Tudela during 1160-1173; and the rediscovery of Babylon to Pietro della Valle in 1616. The first to identify the ruins of Takht-i-Jamshid with the palace of Darius at Persepolis was the Spanish ambassador to Iran, Don Garcia Silva Figueroa in 1617. Moreover, European concern with the decipherment of cuneiform inscriptions also goes back to the 17th century.

This monograph establishes a basis for the 'prehistory' of Assyriology through an annotated list of cuneiform texts published prior to 1851: the year in which Rawlinson laid the firm foundations of that branch of philology.

CYRUS H. GORDON.



CITADEL OF LIPARI

Large oval hut (about 1800-1450 B.C.); in foreground, the wall of a Hellenistic house; on right, the plan of the site (oval hut at bottom, left). Excavated by Professor Bernabo Brea
 (see pp. 194-5)